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EXECUTIVE DOCUMENTS

PRINTED BY ORDER OF THE

HOUSE OF REPRESENTATIVES

DURING THE

SECOND SESSION OF THE FORTY-FIRST CONGRESS.

1869-'70..

IN THIRTEEN VOLUMES.

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OF THE

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MESSAGE

OF THE

PRESIDENT OF THE UNITED STATES,

WITH THE REPORTS OF

THE POSTMASTER GENERAL

AND OF

THE SECRETARY OF THE NAVY,

COMMUNICATED TO

THE TWO HOUSES OF CONGRESS AT THE BEGINNING OF THE
SECOND SESSION OF THE FORTY-FIRST CONGRESS.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1869.

MESSAGE

OF THE

PRESIDENT OF THE UNITED STATES.

To the Senate and House of Representatives :

In coming before you for the first time as Chief Magistrate of this great nation it is with gratitude to the Giver of all good for the many benefits we enjoy : we are blessed with peace at home, and are without entangling alliances abroad to forebode trouble ; with a territory unsurpassed in fertility, of an area equal to the abundant support of five hundred millions of people, and abounding in every variety of useful mineral in quantity sufficient to supply the world for generations ; with exuberant crops ; with a variety of climate adapted to the production of every species of earth's riches, and suited to the habits, tastes, and requirements of every living thing ; with a population of forty millions of free people, all speaking one language ; with facilities for every mortal to acquire an education ; with institutions closing to none the avenues to fame or any blessing of fortune that may be coveted ; with freedom of the pulpit, the press, and the school ; with a revenue flowing into the national treasury beyond the requirements of the government. Happily, harmony is being rapidly restored within our own borders. Manufactures hitherto unknown in our country are springing up in all sections, producing a degree of national independence unequalled by that of any other power.

These blessings and countless others are intrusted to your care and mine for safe-keeping, for the brief period of our tenure of office. In a short time we must, each of us, return to the ranks of the people who have conferred upon us our honors, and account to them for our stewardship. I earnestly desire that neither you nor I may be condemned by a free and enlightened constituency, nor by our own consciences.

Emerging from a rebellion of gigantic magnitude, aided as it was by the sympathies and assistance of nations with which we were at peace, eleven States of the Union were, four years ago, left without legal State governments. A national debt had been contracted ; American commerce was almost driven from the seas ; the industry of one-half of the country had been taken from the control of the capitalist and placed

where all labor rightfully belongs—in the keeping of the laborer. The work of restoring State governments loyal to the Union, of protecting and fostering free labor, and providing means for paying the interest on the public debt, has received ample attention from Congress. Although your efforts have not met with the success in all particulars that might have been desired, yet, on the whole, they have been more successful than could have been reasonably anticipated.

Seven States which passed ordinances of secession have been fully restored to their places in the Union. The eighth, Georgia, held an election at which she ratified her constitution, republican in form, elected a governor, members of Congress, a State legislature, and all other officers required. The governor was duly installed, and the legislature met and performed all the acts then required of them by the reconstruction acts of Congress. Subsequently, however, in violation of the constitution which they had just ratified, (as since decided by the supreme court of the State,) they unseated the colored members of the legislature and admitted to seats some members who are disqualified by the third clause of the fourteenth amendment to the Constitution, an article which they themselves had contributed to ratify. Under these circumstances, I would submit to you whether it would not be wise, without delay, to enact a law authorizing the governor of Georgia to convene the members originally elected to the legislature, requiring each member to take the oath prescribed by the reconstruction acts, and none to be admitted who are ineligible under the third clause of the fourteenth amendment.

The freedmen, under the protection which they have received, are making rapid progress in learning, and no complaints are heard of lack of industry on their part where they receive fair remuneration for their labor. The means provided for paying the interest on the public debt, with all other expenses of government, are more than ample. The loss of our commerce is the only result of the late rebellion which has not received sufficient attention from you. To this subject I call your earnest attention. I will not now suggest plans by which this object may be effected, but will, if necessary, make it the subject of a special message during the session of Congress.

At the March term, Congress by joint resolution authorized the Executive to order elections in the States of Virginia, Mississippi, and Texas, to submit to them the constitutions which each had previously, in convention, framed, and submit the constitutions, either entire or in separate parts, to be voted upon, at the discretion of the Executive. Under this authority elections were called. In Virginia the election took place on the 6th of July, 1869. The governor and lieutenant governor elected have been installed. The legislature met and did all required by this resolution and by all the reconstruction acts of Congress, and abstained from all doubtful authority. I recommend that her senators and representatives be promptly admitted to their seats, and that the State be fully restored to its place in the family

of States. Elections were called in Mississippi and Texas, to commence on the 30th of November, 1869, and to last two days in Mississippi and four days in Texas. The elections have taken place, but the result is not known. It is to be hoped that the acts of the legislatures of these States, when they meet, will be such as to receive your approval, and thus close the work of reconstruction.

Among the evils growing out of the rebellion, and not yet referred to, is that of an irredeemable currency. It is an evil which I hope will receive your most earnest attention. It is a duty, and one of the highest duties of government, to secure to the citizen a medium of exchange of fixed, unvarying value. This implies a return to a specie basis, and no substitute for it can be devised. It should be commenced now and reached at the earliest practicable moment consistent with a fair regard to the interests of the debtor class. Immediate resumption, if practicable, would not be desirable. It would compel the debtor class to pay, beyond their contracts, the premium on gold at the date of their purchase, and would bring bankruptcy and ruin to thousands. Fluctuations, however, in the paper value of the measure of all values (gold) is detrimental to the interests of trade. It makes the man of business an involuntary gambler, for, in all sales where future payment is to be made, both parties speculate as to what will be the value of the currency to be paid and received. I earnestly recommend to you, then, such legislation as will insure a gradual return to specie payments and put an immediate stop to fluctuations in the value of currency.

The methods to secure the former of these results are as numerous as are the speculators on political economy. To secure the latter I see but one way, and that is to authorize the Treasury to redeem its own paper, at a fixed price, whenever presented; and to withhold from circulation all currency so redeemed until sold again for gold.

The vast resources of the nation, both developed and undeveloped, ought to make our credit the best on earth. With a less burden of taxation than the citizen has endured for six years past, the entire public debt could be paid in ten years. But it is not desirable that the people should be taxed to pay it in that time. Year by year the ability to pay increases in a rapid ratio. But the burden of interest ought to be reduced as rapidly as can be done without the violation of contract. The public debt is represented, in great part, by bonds having from five to twenty and from ten to forty years to run, bearing interest at the rate of six per cent. and five per cent. respectively. It is optional with the government to pay these bonds at any period after the expiration of the least time mentioned upon their face. The time has already expired when a great part of them may be taken up, and is rapidly approaching when all may be. It is believed that all which are now due may be replaced by bonds bearing a rate of interest not exceeding four and a half per cent., and as rapidly as the remainder become due that they may be replaced in the same way. To accomplish this, it may be neces-

sary to authorize the interest to be paid at either of three or four of the money centers of Europe, or by any assistant treasurer of the United States, at the option of the holder of the bond. I suggest this subject for the consideration of Congress, and also, simultaneously with this, the propriety of redeeming our currency, as before suggested, at its market value at the time the law goes into effect, increasing the rate at which currency shall be bought and sold from day to day, or week to week, at the same rate of interest as government pays upon its bonds.

The subject of tariff and internal taxation will necessarily receive your attention. The revenues of the country are greater than the requirements, and may with safety be reduced. But, as the funding of the debt in a four or a four and a half per cent. loan would reduce annual current expenses largely, thus, after funding, justifying a greater reduction of taxation than would be now expedient, I suggest postponement of this question until the next meeting of Congress.

It may be advisable to modify taxation and tariff, in instances where unjust or burdensome discriminations are made by the present laws; but, a general revision of the laws regulating this subject I recommend the postponement of, for the present. I also suggest the renewal of the tax on incomes, but at a reduced rate, say of three per cent., and this tax to expire in three years.

With the funding of the national debt, as here suggested, I feel safe in saying that taxes and the revenue from imports may be reduced safely from sixty to eighty millions per annum at once, and may be still further reduced from year to year, as the resources of the country are developed.

The report of the Secretary of the Treasury shows the receipts of the government for the fiscal year ending June 30, 1869, to be \$370,943,747, and the expenditures, including interest, bounties, &c., to be \$321,490,597. The estimates for the ensuing year are more favorable to the government, and will no doubt show a much larger decrease of the public debt.

The receipts in the treasury, beyond expenditures, have exceeded the amount necessary to place to the credit of the sinking fund as provided by law. To lock up the surplus in the Treasury and withhold it from circulation, would lead to such a contraction of the currency as to cripple trade and seriously affect the prosperity of the country. Under these circumstances, the Secretary of the Treasury and myself heartily concurred in the propriety of using all the surplus currency in the Treasury in the purchase of government bonds, thus reducing the interest-bearing indebtedness of the country, and of submitting to Congress the question of the disposition to be made of the bonds so purchased. The bonds now held by the Treasury amount to about seventy-five millions, including those belonging to the sinking fund. I recommend that the whole be placed to the credit of the sinking fund.

Your attention is respectfully invited to the recommendations of the

Secretary of the Treasury for the creation of the office of Commissioner of Customs Revenue; for the increase of salaries to certain classes of officials; the substitution of increased national bank circulation to replace the outstanding three per cent. certificates; and most especially to his recommendation for the repeal of laws allowing shares of fines, penalties, forfeitures, &c., to officers of the government or to informers.

The office of Commissioner of Internal Revenue is one of the most arduous and responsible under the government. It falls but little, if any, short of a cabinet position, in its importance and responsibilities. I would ask for it, therefore, such legislation as, in your judgment, will place the office upon a footing of dignity commensurate with its importance, and with the character and qualifications of the class of men required to fill it properly.

As the United States is the freest of all nations, so, too, its people sympathize with all peoples struggling for liberty and self-government. But while so sympathizing, it is due to our honor that we should abstain from enforcing our views upon unwilling nations, and from taking an interested part, *without invitation*, in the quarrels between different nations or between governments and their subjects. Our course should always be in conformity with strict justice and law, international and local. Such has been the policy of the administration in dealing with these questions. For more than a year, a valuable province of Spain, and a near neighbor of ours, in whom all our people cannot but feel a deep interest, has been struggling for independence and freedom. The people and government of the United States entertain the same warm feelings and sympathies for the people of Cuba, in their pending struggle, that they manifested throughout the previous struggles between Spain and her former colonies, in behalf of the latter. But the contest has at no time assumed the conditions which amount to a war, in the sense of international law, or which would show the existence of a *de facto* political organization of the insurgents, sufficient to justify a recognition of belligerency.

The principle is maintained, however, that this nation is its own judge when to accord the rights of belligerency, either to a people struggling to free themselves from a government they believe to be oppressive, or to independent nations at war with each other.

The United States have no disposition to interfere with the existing relations of Spain to her colonial possessions on this continent. They believe that in due time Spain and other European powers will find their interest in terminating those relations, and establishing their present dependencies as independent powers—members of the family of nations. These dependencies are no longer regarded as subject to transfer from one European power to another. When the present relation of colonies ceases, they are to become independent powers, exercising the right of choice and of self-control in the determination of their future condition and relations with other powers.

The United States, in order to put a stop to bloodshed in Cuba, and in the interest of a neighboring people, proposed their good offices to bring the existing contest to a termination. The offer, not being accepted by Spain on a basis which we believed could be received by Cuba, was withdrawn. It is hoped that the good offices of the United States may yet prove advantageous for the settlement of this unhappy strife. Meanwhile a number of illegal expeditions against Cuba have been broken up. It has been the endeavor of the administration to execute the neutrality laws in good faith, no matter how unpleasant the task, made so by the sufferings we have endured from lack of like good faith toward us by other nations.

On the 26th of March last the United States schooner *Lizzie Major* was arrested on the high seas by a Spanish frigate, and two passengers taken from it and carried as prisoners to Cuba. Representations of these facts were made to the Spanish government as soon as official information of them reached Washington. The two passengers were set at liberty, and the Spanish government assured the United States that the captain of the frigate in making the capture had acted without law, that he had been reprimanded for the irregularity of his conduct, and that the Spanish authorities in Cuba would not sanction any act that could violate the rights or treat with disrespect the sovereignty of this nation.

The question of the seizure of the brig *Mary Lowell* at one of the Bahama Islands, by Spanish authorities, is now the subject of correspondence between this government and those of Spain and Great Britain.

The Captain General of Cuba, about May last, issued a proclamation authorizing search to be made of vessels on the high seas. Immediate remonstrance was made against this, whereupon the Captain General issued a new proclamation limiting the right of search to vessels of the United States so far as authorized under the treaty of 1795. This proclamation, however, was immediately withdrawn.

I have always felt that the most intimate relations should be cultivated between the republic of the United States and all independent nations on this continent. It may be well worth considering whether new treaties between us and them may not be profitably entered into, to secure more intimate relations, friendly, commercial, and otherwise.

The subject of an inter-oceanic canal, to connect the Atlantic and Pacific Oceans, through the Isthmus of Darien, is one in which commerce is greatly interested. Instructions have been given to our minister to the republic of the United States of Colombia to endeavor to obtain authority for a survey by this government, in order to determine the practicability of such an undertaking, and a charter for the right of way to build, by private enterprise, such a work, if the survey proves it to be practicable.

In order to comply with the agreement of the United States as to a

mixed commission at Lima for the adjustment of claims, it became necessary to send a commissioner and secretary to Lima in August last. No appropriation having been made by Congress for this purpose, it is now asked that one be made covering the past and future expenses of the commission.

The good offices of the United States to bring about a peace between Spain and the South American republics, with which she is at war, having been accepted by Spain, Peru, and Chili, a congress has been invited, to be held in Washington during the present winter.

A grant has been given to Europeans of an exclusive right of transit over the territory of Nicaragua, to which Costa Rica has given its assent, which it is alleged conflicts with vested rights of citizens of the United States. The Department of State has now this subject under consideration.

The minister of Peru having made representations that there was a state of war between Peru and Spain, and that Spain was constructing, in and near New York, thirty gunboats, which might be used by Spain in such a way as to relieve the naval force at Cuba so as to operate against Peru, orders were given to prevent their departure. No further steps having been taken by the representative of the Peruvian government to prevent the departure of these vessels, and I not feeling authorized to detain the property of a nation with which we are at peace, on a mere executive order, the matter has been referred to the courts to decide.

The conduct of the war between the allies and the republic of Paraguay has made the intercourse with that country so difficult that it has been deemed advisable to withdraw our representative from there.

Toward the close of the last administration, a convention was signed at London, for the settlement of all outstanding claims between Great Britain and the United States, which failed to receive the advice and consent of the Senate to its ratification. The time and the circumstances attending the negotiation of that treaty were unfavorable to its acceptance by the people of the United States, and its provisions were wholly inadequate for the settlement of the grave wrongs that had been sustained by this government as well as by its citizens. The injuries resulting to the United States by reason of the course adopted by Great Britain during our late civil war, in the increased rates of insurance; in the diminution of exports and imports, and other obstructions to domestic industry and production; in its effect upon the foreign commerce of the country; in the decrease and transfer to Great Britain of our commercial marine; in the prolongation of the war and the increased cost (both in treasure and in lives) of its suppression, could not be adjusted and satisfied as ordinary commercial claims, which continually arise between commercial nations. And yet the convention treated them simply as such ordinary claims, from which they differ more widely in the gravity of their character than in the magnitude of their amount,

great even as is that difference. Not a word was found in the treaty, and not an inference could be drawn from it, to remove the sense of the unfriendliness of the course of Great Britain, in our struggle for existence, which had so deeply and universally impressed itself upon the people of this country.

Believing that a convention thus misconceived in its scope and inadequate in its provisions would not have produced the hearty cordial settlement of pending questions, which alone is consistent with the relations which I desire to have firmly established between the United States and Great Britain, I regarded the action of the Senate, in rejecting the treaty, to have been wisely taken, in the interest of peace, and as a necessary step in the direction of a perfect and cordial friendship between the two countries. A sensitive people, conscious of their power, are more at ease under a great wrong, wholly unatoned, than under the restraint of a settlement which satisfies neither their ideas of justice nor their grave sense of the grievance they have sustained. The rejection of the treaty was followed by a state of public feeling, on both sides, which I thought not favorable to an immediate attempt at renewed negotiations. I accordingly so instructed the minister of the United States to Great Britain, and found that my views in this regard were shared by her Majesty's ministers. I hope that the time may soon arrive when the two governments can approach the solution of this momentous question with an appreciation of what is due to the rights, dignity and honor of each, and with the determination not only to remove the causes of complaint in the past, but to lay the foundation of a broad principle of public law, which will prevent future differences and tend to firm and continued peace and friendship.

This is now the only grave question which the United State has with any foreign nation.

The question of renewing a treaty for reciprocal trade between the United States and the British provinces on this continent, has not been favorably considered by the administration. The advantages of such a treaty would be wholly in favor of the British producer. Except, possibly, a few engaged in the trade between the two sections, no citizen of the United States would be benefited by reciprocity. Our internal taxation would prove a protection to the British producer, almost equal to the protection which our manufacturers now receive from the tariff. Some arrangement, however, for the regulation of commercial intercourse between the United States and the Dominion of Canada may be desirable.

The commission for adjusting the claims of the "Hudson Bay and Puget's Sound Agricultural Company" upon the United States, has terminated its labors. The award of six hundred and fifty thousand dollars has been made, and all rights and titles of the company on the territory of the United States have been extinguished. Deeds for the property of the company have been delivered. An appropriation by Congress to meet this sum is asked.

The commissioners for determining the Northwestern Land Boundary between the United States and the British Possessions, under the treaty of 1856, have completed their labors, and the commission has been dissolved.

In conformity with the recommendation of Congress, a proposition was early made to the British government to abolish the mixed courts created under the treaty of April 7, 1862, for the suppression of the slave trade. The subject is still under negotiation.

It having come to my knowledge that a corporate company, organized under British laws, proposed to land upon the shores of the United States and to operate there a submarine cable, under a concession from his Majesty, the Emperor of the French, of an exclusive right, for twenty years, of telegraphic communication between the shores of France and the United States, with the very objectionable feature of subjecting all messages conveyed thereby to the scrutiny and control of the French government, I caused the French and British legations at Washington to be made acquainted with the probable policy of Congress on this subject, as foreshadowed by the bill which passed the Senate in March last. This drew from the representatives of the company an agreement to accept, as the basis of their operations, the provisions of that bill, or of such other enactment on the subject as might be passed during the approaching session of Congress; also, to use their influence to secure from the French government a modification of their concession, so as to permit the landing, upon French soil, of any cable belonging to any company incorporated by the authority of the United States, or of any State in the Union, and, on their part, not to oppose the establishment of any such cable. In consideration of this agreement, I directed the withdrawal of all opposition by the United States authorities to the landing of the cable, and to the working of it, until the meeting of Congress. I regret to say that there has been no modification made in the company's concession, nor, so far as I can learn, have they attempted to secure one. Their concession excludes the capital and the citizens of the United States from competition upon the shores of France. I recommend legislation, to protect the rights of citizens of the United States, as well as the dignity and sovereignty of the nation, against such an assumption. I shall also endeavor to secure, by negotiation, an abandonment of the principle of monopolies in ocean telegraphic cables. Copies of this correspondence are herewith furnished.

The unsettled political condition of other countries, less fortunate than our own, sometimes induces their citizens to come to the United States for the sole purpose of becoming naturalized. Having secured this, they return to their native country and reside there, without disclosing their change of allegiance. They accept official positions of trust or honor, which can only be held by citizens of their native land; they journey under passports describing them as such citizens; and it is only when

civil discord, after perhaps years of quiet, threatens their persons or their property, or when their native state drafts them into its military service, that the fact of their change of allegiance is made known. They reside permanently away from the United States, they contribute nothing to its revenues, they avoid the duties of its citizenship, and they only make themselves known by a claim of protection. I have directed the diplomatic and consular officers of the United States to scrutinize carefully all such claims of protection. The citizen of the United States, whether native or adopted, who discharges his duty to his country, is entitled to its complete protection. While I have a voice in the direction of affairs, I shall not consent to imperil this sacred right by conferring it upon fictitious or fraudulent claimants.

On the accession of the present administration, it was found that the minister for North Germany had made propositions for the negotiation of a convention for the protection of emigrant passengers, to which no response had been given. It was concluded that, to be effectual, all the maritime powers engaged in the trade should join in such a measure. Invitations have been extended to the cabinets of London, Paris, Florence, Berlin, Brussels, The Hague, Copenhagen, and Stockholm, to empower their representatives at Washington to simultaneously enter into negotiations, and to conclude with the United States, conventions identical in form, making uniform regulations as to the construction of the parts of vessels to be devoted to the use of emigrant passengers, as to the quality and quantity of food, as to the medical treatment of the sick, and as to the rules to be observed during the voyage, in order to secure ventilation, to promote health, to prevent intrusion, and to protect the females, and providing for the establishment of tribunals in the several countries, for enforcing such regulations by summary process.

Your attention is respectfully called to the law regulating the tariff on Russian hemp, and to the question whether, to fix the charges on Russian hemp higher than they are fixed upon Manilla, is not a violation of our treaty with Russia, placing her products upon the same footing with those of the most favored nations.

Our manufactures are increasing with wonderful rapidity under the encouragement which they now receive. With the improvements in machinery already effected, and still increasing, causing machinery to take the place of skilled labor to a large extent, our imports of many articles must fall off largely within a very few years. Fortunately, too, manufactures are not confined to a few localities, as formerly, and it is to be hoped will become more and more diffused, making the interest in them equal in all sections. They give employment and support to hundreds of thousands of people at home, and retain with us the means which otherwise would be shipped abroad. The extension of railroads in Europe and the East is bringing into competition with our agricultural products like products of other countries. Self-interest, if not self-preservation, therefore, dictates caution against disturbing any industrial

interest of the country. It teaches us also the necessity of looking to other markets for the sale of our surplus. Our neighbors south of us, and China and Japan, should receive our special attention. It will be the endeavor of the administration to cultivate such relations with all these nations as to entitle us to their confidence, and make it their interest, as well as ours, to establish better commercial relations.

Through the agency of a more enlightened policy than that heretofore pursued toward China, largely due to the sagacity and efforts of one of our own distinguished citizens, the world is about to commence largely increased relations with that populous and hitherto exclusive nation. As the United States have been the initiators in this new policy, so they should be the most earnest in showing their good faith in making it a success. In this connection I advise such legislation as will forever preclude the enslavement of the Chinese upon our soil, under the name of coolies; and also prevent American vessels from engaging in the transportation of coolies to any country tolerating the system. I also recommend that the mission to China be raised to one of the first class.

On my assuming the responsible duties of Chief Magistrate of the United States, it was with the conviction that three things were essential to its peace, prosperity and fullest development. First among these, is strict integrity in fulfilling all our obligations. Second, to secure protection to the person and property of the citizen of the United States, in each and every portion of our common country, wherever he may choose to move, without reference to original nationality, religion, color or politics, demanding of him only obedience to the laws and proper respect for the rights of others. Third, union of all the States—with equal rights—indestructible by any constitutional means.

To secure the first of these, Congress has taken two essential steps: first, in declaring, by joint resolution, that the public debt shall be paid, principal and interest, in coin; and second, by providing the means for paying. Providing the means, however, could not secure the object desired, without a proper administration of the laws for the collection of the revenues, and an economical disbursement of them. To this subject the administration has most earnestly addressed itself, with results, I hope, satisfactory to the country. There has been no hesitation in changing officials in order to secure an efficient execution of the laws, sometimes too, when, in a mere party view, undesirable political results were likely to follow; nor any hesitation in sustaining efficient officials, against remonstrances wholly political.

It may be well to mention here the embarrassment possible to arise from leaving on the statute books the so-called "tenure-of-office acts," and to earnestly recommend their total repeal. It could not have been the intention of the framers of the Constitution, when providing that appointments made by the President should receive the consent of the

Senate, that the latter should have the power to retain in office persons placed there, by federal appointment, against the will of the President. The law is inconsistent with a faithful and efficient administration of the government. What faith can an Executive put in officials forced upon him, and those, too, whom he has suspended for reason? How will such officials be likely to serve an administration which they know does not trust them?

For the second requisite to our growth and prosperity, time and a firm but humane administration of existing laws (amended from time to time as they may prove ineffective, or prove harsh and unnecessary) are probably all that are required.

The third cannot be attained by special legislation, but must be regarded as fixed by the Constitution itself, and gradually acquiesced in by force of public opinion.

From the foundation of the government to the present, the management of the original inhabitants of this continent, the Indians, has been a subject of embarrassment and expense, and has been attended with continuous robberies, murders and wars. From my own experience upon the frontiers and in Indian countries, I do not hold either legislation, or the conduct of the whites who come most in contact with the Indian, blameless for these hostilities. The past, however, cannot be undone, and the question must be met as we now find it. I have attempted a new policy toward these wards of the nation, (they cannot be regarded in any other light than as wards), with fair results so far as tried, and which I hope will be attended ultimately with great success. The Society of Friends is well known as having succeeded in living in peace with the Indians, in the early settlement of Pennsylvania, while their white neighbors of other sects, in other sections, were constantly embroiled. They are also known for their opposition to all strife, violence and war, and are generally noted for their strict integrity and fair dealings. These considerations induced me to give the management of a few reservations of Indians to them, and to throw the burden of the selection of agents upon the Society itself. The result has proven most satisfactory. It will be found more fully set forth in the report of the Commissioner of Indian Affairs. For superintendents and Indian agents not on the reservations, officers of the army were selected. The reasons for this are numerous. Where Indian agents are sent, there, or near there, troops must be sent also. The agent and the commander of troops are independent of each other, and are subject to orders from different departments of the government. The army officer holds a position for life; the agent, one at the will of the President. The former is personally interested in living in harmony with the Indian, and in establishing a permanent peace, to the end that some portion of his life may be spent within the limits of civilized society. The latter has no such personal interest. Another reason is an economic one; and still another, the hold which the government has upon a life officer to secure a faithful discharge of duties in carrying out a given policy.

The building of railroads, and the access thereby given to all the agricultural and mineral regions of the country, is rapidly bringing civilized settlements into contact with all the tribes of Indians. No matter what ought to be the relations between such settlements and the aborigines, the fact is they do not harmonize well, and one or the other has to give way in the end. A system which looks to the extinction of a race is too horrible for a nation to adopt, without entailing upon itself the wrath of all Christendom, and engendering in the citizen a disregard for human life and the rights of others, dangerous to society. I see no substitute for such a system, except in placing all the Indians on large reservations, as rapidly as it can be done, and giving them absolute protection there. As soon as they are fitted for it, they should be induced to take their lands in severalty, and to set up territorial governments for their own protection. For full details on this subject, I call your special attention to the reports of the Secretary of the Interior and the Commissioner of Indian Affairs.

The report of the Secretary of War shows the expenditures of the War Department, for the year ending June 30, 1869, to be \$80,644,042, of which \$23,882,310 was disbursed in the payment of debts contracted during the war, and is not chargeable to current army expenses. His estimate of \$34,531,031 for the expenses of the army, for the next fiscal year, is as low as it is believed can be relied on. The estimates of bureau officers have been carefully scrutinized, and reduced wherever it has been deemed practicable. If, however, the condition of the country should be such, by the beginning of the next fiscal year, as to admit of a greater concentration of troops, the appropriation asked for will not be expended.

The appropriations estimated for river and harbor improvements and for fortifications, are submitted separately. Whatever amount Congress may deem proper to appropriate for these purposes, will be expended.

The recommendation of the General of the Army, that appropriations be made for the forts at Boston, Portland, New York, Philadelphia, New Orleans and San Francisco, if for no other, is concurred in. I also ask your special attention to the recommendation of the general commanding the military division of the Pacific, for the sale of the seal islands of St. Paul and St. George, Alaska Territory, and suggest that it either be complied with, or that legislation be had for the protection of the seal fisheries, from which a revenue should be derived.

The report of the Secretary of War contains a synopsis of the reports of the heads of bureaus, of the commanders of military divisions, and of the districts of Virginia, Mississippi, and Texas, and the report of the General of the Army in full. The recommendations therein contained have been well considered, and are submitted for your action. I, however, call special attention to the recommendation of the Chief of Ordnance, for the sale of arsenals and lands no longer of use to the gov-

ernment; also, to the recommendation of the Secretary of War, that the act of 3d March, 1869, prohibiting promotions and appointments in the staff corps of the army, be repealed. The extent of country to be garrisoned, and the number of military posts to be occupied, is the same with a reduced army as with a large one. The number of staff officers required is more dependent upon the latter than the former condition.

The report of the Secretary of the Navy, accompanying this, shows the condition of the navy, when this administration came into office, and the changes made since. Strenuous efforts have been made to place as many vessels "in commission," or render them fit for service, if required, as possible, and to substitute the sail for steam whilst cruising, thus materially reducing the expenses of the navy and adding greatly to its efficiency. Looking to our future, I recommend a liberal though not extravagant policy toward this branch of the public service.

The report of the Postmaster General furnishes a clear and comprehensive exhibit of the operations of the postal service, and of the financial condition of the Post Office Department. The ordinary postal revenues for the year ending the 30th of June, 1869, amounted to \$18,344,510, and the expenditures to \$23,698,131, showing an excess of expenditures over receipts, of \$5,353,620. The excess of expenditures over receipts, for the previous year, amounted to \$6,437,992. The increase of revenues for 1869, over those of 1868, was \$2,051,909, and the increase or expenditures was \$967,538. The increased revenue in 1869 exceeded the increased revenue in 1868, by \$996,336; and the increased expenditure in 1869 was \$2,527,570 less than the increased expenditure in 1868, showing by comparison this gratifying feature of improvement, that while the increase of expenditures over the increase of receipts in 1868, was \$2,439,535, the increase of receipts over the increase of expenditures in 1869, was \$1,084,371.

Your attention is respectfully called to the recommendations made by the Postmaster General, for authority to change the rate of compensation to the main trunk railroad lines, for their services in carrying the mails; for having post route maps executed; for reorganizing and increasing the efficiency of the special agency service; for increase of the mail service on the Pacific, and for establishing mail service, under the flag of the Union, on the Atlantic; and most especially do I call your attention to his recommendation for the total abolition of the franking privilege. This is an abuse from which no one receives a commensurate advantage; it reduces the receipts for postal service from twenty-five to thirty per cent., and largely increases the service to be performed. The method by which postage should be paid upon public matter is set forth fully in the report of the Postmaster General.

The report of the Secretary of the Interior shows that the quantity of public lands disposed of, during the year ending the 30th of June, 1869, was 7,666,152 acres, exceeding that of the preceding year, by 1,010,409 acres. Of this amount, 2,899,544 acres were sold for cash, and 2,737,365

acres entered under the homestead laws. The remainder was granted to aid in the construction of works of internal improvement, approved to the States as swamp land, and located with warrants and scrip. The cash receipts from all sources were \$4,472,886, exceeding those of the preceding year, \$2,840,140.

During the last fiscal year, 23,196 names were added to the pension rolls, and 4,876 dropped therefrom, leaving at its close 187,963. The amount paid to pensioners, including the compensation of disbursing agents, was \$28,422,884, an increase of \$4,411,902 on that of the previous year. The munificence of Congress has been conspicuously manifested in its legislation for the soldiers and sailors who suffered in the recent struggle to maintain "that unity of government which makes us one people." The additions to the pension rolls of each successive year, since the conclusion of hostilities, result in a great degree from the repeated amendments of the act of the 14th of July, 1862, which extended its provisions to cases not falling within its original scope. The large outlay which is thus occasioned is further increased by the more liberal allowance bestowed, since that date, upon those who in the line of duty were wholly or permanently disabled. Public opinion has given an emphatic sanction to these measures of Congress, and it will be conceded that no part of our public burden is more cheerfully borne, than that which is imposed by this branch of the service. It necessitates for the next fiscal year, in addition to the amount justly chargeable to the naval pension fund, an appropriation of thirty millions of dollars.

During the year ending the 30th of September, 1869, the Patent Office issued 13,762 patents, and its receipts were \$686,389, being \$213,926 more than the expenditures.

I would respectfully call your attention to the recommendation of the Secretary of the Interior, for uniting the duties of supervising the education of freedmen with the other duties devolving upon the Commissioner of Education.

If it is the desire of Congress to make the census, which must be taken during the year 1870, more complete and perfect than heretofore, I would suggest early action upon any plan that may be agreed upon. As Congress, at the last session, appointed a committee to take into consideration such measures as might be deemed proper in reference to the census, and report a plan, I desist from saying more.

I recommend to your favorable consideration the claims of the Agricultural Bureau for liberal appropriations. In a country so diversified in climate and soil as ours, and with a population so largely dependent upon agriculture, the benefits that can be conferred by properly fostering this bureau are incalculable.

I desire respectfully to call the attention of Congress to the inadequate salaries of a number of the most important offices of the govern-

ment. In this message I will not enumerate them, but will specify only the justices of the Supreme Court. No change has been made in their salaries for fifteen years. Within that time, the labors of the court have largely increased, and the expenses of living have at least doubled. During the same time, Congress has twice found it necessary to increase largely the compensation of its own members; and the duty which it owes to another department of the government deserves, and will undoubtedly receive, its due consideration.

There are many subjects not alluded to in this message, which might with propriety be introduced, but I abstain, believing that your patriotism and statesmanship will suggest the topics and the legislation most conducive to the interests of the whole people. On my part, I promise a rigid adherence to the laws, and their strict enforcement.

U. S. GRANT.

EXECUTIVE MANSION,

Washington, D. C., December 6, 1869.

DOCUMENTS

ACCOMPANYING

THE MESSAGE OF THE PRESIDENT.

OPINIONS AND AWARD

OF

THE COMMISSIONERS, UNDER THE TREATY OF JULY 1, 1863,
BETWEEN GREAT BRITAIN AND THE UNITED STATES,
FOR THE FINAL SETTLEMENT OF THE CLAIMS OF THE
HUDSON'S BAY AND PUGET SOUND AGRICULTURAL COM-
PANIES, PRONOUNCED SEPTEMBER 10, 1869.

BRITISH AND AMERICAN JOINT COMMISSION ON THE HUDSON'S BAY AND
PUGET SOUND AGRICULTURAL COMPANIES' CLAIMS AGAINST THE UNITED
STATES.

OPINION OF THE HON. A. S. JOHNSON, COMMISSIONER ON THE PART OF
THE UNITED STATES.

In the matter of the claims of the Hudson's Bay Company and the Puget Sound
Agricultural Company, against the United States of America.

The treaty of July 1, 1863, [between the United States and Great Britain,] from which we derive our authority as commissioners, furnishes us with the rule of our action, in the declaration required to be made by us before proceeding to any business. The terms of that declaration are, that we will impartially and carefully examine, and decide, to the best of our judgment and according to justice and equity, without fear, favor, or affection to our own country, all the matters referred to us for our decision.

These matters are defined in the first article of the treaty. In this article, after a brief recital of the third and fourth articles of the Oregon treaty of June 15, 1846, and a declaration that it is desirable that all questions between the United States authorities on the one hand and the Hudson's Bay and Puget Sound Agricultural Companies on the other, with respect to the possessory rights and claims of those companies, and of any other British subjects in Oregon and Washington Territory, should be settled by the transfer of those rights and claims to the government of the United States for an adequate money consideration, it is agreed that commissioners shall be appointed for the purpose of examining and deciding upon all claims arising out of the provisions of the above-quoted articles of the Oregon treaty.

The Oregon treaty recites it to be desirable, for the future welfare of both countries, that the state of doubt and uncertainty which had hitherto prevailed respecting the sovereignty and government of the territory on the northwest coast of America lying westward of the Rocky or Stony Mountains should be finally terminated by an amicable compromise of the rights mutually asserted by the two parties over the said territory. It then, in its first article, fixes a line of boundary between the territories of the United States and those of her Britannic Majesty. By the second article, the navigation of the great northern branch of the Columbia River to its junction with the main stream, and thence to the ocean, with all the usual portages, is declared to be free and open to the Hudson's Bay Company, and to all British subjects trading with the same.

The third and fourth articles, which are directly in question, are in these words:

ARTICLE 3. In the future appropriation of the territory south of the forty-ninth parallel of north latitude, as provided in the first article of this treaty, the possessory rights of the Hudson's Bay Company, and of all British subjects who may be already in the occupation of land or other property lawfully acquired within the said territory, shall be respected.

ARTICLE 4. The farms, lands, and other property of every description, belonging to the Puget Sound Agricultural Company, on the north side of the Columbia River, shall be confirmed to the said company. In case, however, the situation of those farms and lands should be considered by the United States to be of public and political importance, and the United States government should signify a desire to obtain possession of the whole, or of any part thereof, the property so required shall be transferred to the said government, at a proper valuation to be agreed upon between the parties.

These are the treaty provisions which mainly control the rights and claims upon which we are to pronounce. There are, however, earlier arrangements between the two governments respecting the northwest territory, which ought to be kept in view.

By the convention of October 20, 1818, article 3, it was agreed that any country that may be claimed by either party on the northwest coast of America westward of the Stony Mountains, shall, together with its harbors, bays, and creeks, and the navigation of all rivers within the same, be free and open for the term of ten years from the date of the signature of the present convention, to the vessels, citizens, and subjects of the two powers; it being well understood that this agreement is not to be construed to the prejudice of any claim which either of the two high contracting parties may have to any part of the said country, nor shall it be taken to affect the claims of any other power or state to any part of the said country; the only object of the high contracting parties, in that respect, being to prevent disputes and differences among themselves.

Subsequently, on the 6th of August, 1827, by another convention, the third article of that of 1818 was indefinitely extended and continued in force, subject, however, to be abrogated on twelve months' notice by either party to the other. And it was further declared that neither convention should be construed to impair, or in any manner affect, the claims which either of the contracting parties may have to any part of the country westward of the Stony or Rocky Mountains.

In connection with the negotiation of the convention just mentioned, it is proper to notice the British statement annexed to the protocol of the sixth conference, held at London, December 16, 1826, between Messrs. Huskisson and Addington, the British commissioners, and Mr. Gallatin, the minister plenipotentiary of the United States. It is mainly a discussion of the grounds of claim urged by the United States to the exclusive sovereignty of the territory, and so far is not material to be considered. It contains also a statement of the views maintained by the British government in respect to the joint occupation of the territory, which, in my judgment, have a bearing on the question before us.

It commences by stating that, in proposing to renew the arrangement for joint occupation for a further term of years, the British government regrets it has been found impossible, in the present negotiation, to agree upon a line of boundary which should separate those parts of the territory which might thenceforward be occupied or settled by

the subjects of Great Britain from the parts which would remain open to occupancy and settlement by the United States.

After a discussion of the claims of the two countries, this statement is made: "In the interior of the territory in question the subjects of Great Britain have had for many years numerous settlements and trading posts—several of these posts on the tributary streams of the Columbia, several on the Columbia itself, some to the northward, and others to the southward of that river." "It only remains for Great Britain to maintain and uphold the qualified rights which she now possesses over the whole of the territory in question. These rights are recorded and defined in the convention of Nootka. They embrace the right to navigate the waters of those countries, the right to settle in and own any part of them, and the right freely to trade with the inhabitants and occupiers of the same. These rights have been peaceably exercised ever since the date of that convention, that is, for a period of nearly forty years. Under that convention valuable British interests have grown up in these countries." "To the interests and establishments which British industry and enterprise have created Great Britain owes protection. That protection will be given, both as regards settlement and freedom of trade and navigation, with every attention not to infringe the co-ordinate rights of the United States."

Even prior to the making of the first convention of joint occupation posts were held in the country in question, both by the Northwest Company and the Hudson's Bay Company. These posts came subsequently, by agreement between the two companies, into the sole possession of the Hudson's Bay Company. These establishments had been greatly increased in number and value before the period of the renewal of the convention for joint occupation. At the time of the making of the Oregon treaty they had been still further extended and improved, so that the actual possessions of the company and of the Puget Sound Agricultural Company embraced a very large and valuable property interest—in fact, the most important and valuable of the civilized establishments within that territory. This result had been facilitated by the act of Parliament of 1821, which authorized the Crown to grant for a period not exceeding twenty-one years the exclusive privilege of trading with the Indians—exclusive as against all British subjects, but not attempting any interference with the rights of American citizens. In pursuance of this act a grant was made of the exclusive trade with the Indians, which became finally vested in the Hudson's Bay Company, and which by renewal was in force in 1846, when the Oregon treaty was made, and by its terms was to expire in 1859.

In addition to this right of exclusive trade with the Indians, various powers and duties were, in pursuance of the act of Parliament referred to, conferred upon the Hudson's Bay Company, having reference to an administration of justice and government. It thereby became a quasi-governmental agency of the British government over its subjects within that territory. Under these favoring circumstances the company increased largely in wealth and possessions, and was in great prosperity at the conclusion of the treaty of 1846.

It will be observed, that not only were the rights of American citizens not interfered with by the act of Parliament, but no right was denied within the territory to any British subject, save that of trading with the Indians. The whole effect in this regard, therefore, of the act of Parliament and the grants made in pursuance of it, was to close the trade with the Indians against all British subjects in favor of the Hudson's Bay Company. So far as we have been made aware, there was no other legis-

lation, by either government, restricting its citizens or subjects from the full and free enjoyment of all the rights embraced in the mutual declaration of the two governments, that the territory should be free and open to the subjects and citizens of each. The declaration contains no limit upon the nature of the use to be made of the territory by those who should resort to it, and in the absence of any such expressed limit the terms employed should receive a large and beneficial construction. They who went into the territory were, I think, at liberty to make such use of it as it was found to be capable of, for trade and hunting if it were fit for nothing better, for civilization and settlement if that were found to be possible.

The main purpose and object of the reservation which accompanied the convention of joint occupation and its renewal was to save the question of ultimate sovereignty from prejudice. And although the legal title to the land may be necessarily included in the idea of sovereignty, so that, notwithstanding settlements and improvements, the settler must be deemed to hold subject to the final adjustment of the question of sovereign dominion, it is not too much to say that those who first appropriated the lands to the purposes and uses of civilized life would have acquired an equitable claim to consideration from whichever party should, in the end, be found to be legally the sovereign. Certainly each government hoped, by emigration and settlement, to strengthen itself in the territory with a view to the final adjustment of the question which was open between them. And I think it can scarcely be supposed that either government ever expected that, in a settlement of the disputed sovereignty by negotiation, the other would be willing to abandon its citizens or subjects, as the case might be, without stipulating for appropriate protection.

The Hudson's Bay Company had, in addition, peculiar claims upon the protection of the British government, under whose sanction its establishments were formed; for while it was carrying on trade, doubtless for its own benefit, it was also the sole governmental agency of Great Britain in the vast region in question. Its position of actual possession in the territory afforded the strongest ground for the expectation, on the part of that government, of maintaining its hold upon the territory, at least to the Columbia River.

Under these circumstances I think the British government was bound to afford its protection, and that the statement of the British negotiators in 1827, as to the purpose of their government in that regard, does not go beyond the measure of obligation due from it to the company.

Nor would the measure of that obligation have been less if the territory had, in the end, fallen to Great Britain. The possession of the company in the territory, acquired with the assent and sanction of the government, and over which they had first begun to extend the influences of civilization, could not have been taken from them without a violation of natural justice. It is true that, for the purposes of civil government, and the convenient devolution of property, the title to land is deemed to be derived from the sovereign, but its more natural foundation is upon the enterprise and labor of those who first subject it to cultivation and civilized use. So strong is the conviction of the justice of this view, in this country at least, that the rights of original settlers have, I think, never been disregarded, and the laws have, from time to time, been modified and molded so as to protect this equitable right, even where it had its inception without the sanction of law. The same view is, in my judgment, to be applied to the possessions of the Hud-

son's Bay Company in this territory with respect to the British government.

They were not held by grant from the Crown, but they were held under circumstances which bound that government to maintain the company in those possessions.

Having thus stated as briefly as I am able the condition of the Hudson's Bay Company at the time of the Oregon treaty, and its relations with the government of Great Britain, and the rights and duties growing out of those relations, I proceed to consider the language of the treaty in its application to these subjects.

The preamble, in substance, declares that the treaty is an amicable compromise of the rights mutually asserted over the territory, and made to put an end to a state of doubt and uncertainty respecting the sovereignty and government over it. This being the declaration of both governments, neither is at liberty in my judgment to go behind it, or to take ground in the construction of the provisions of the treaty, founded on the assertion of a clear previous right. The government of the United States, during the negotiations which preceded the treaty, asserted a right to the whole territory. This position was abandoned by the acceptance of the treaty. The territory is now held as the result of an amicable compromise of conflicting rights, in which there is no concession by either party of any previous invasion of the rights of the other. Upon such an amicable compromise, it stood upon natural justice that protection should be extended to the subjects or citizens of either government, found to be established within the line appropriated to the other, and that the measure of that protection should be equal to the rights of every sort which existed under the original government.

We are not, however, left to determine what would be the rights and duties of the parties were the treaty silent upon the subject. They have seen fit to declare, by the third article of the treaty, that the possessory rights of the Hudson's Bay Company by name, as well as those of all British subjects, having certain qualifications, should be respected.

The plain object of this provision is to secure protection for the parties under the newly acknowledged sovereignty of the United States. It should be construed with a view to the furtherance of that end, and so as to secure ample and complete protection to the rights which were its object.

The stipulation for protection is the language of both governments, and therefore whatever possessory rights the Hudson's Bay Company had against either of them, whatever their nature or completeness, whether they were of perfect or only of imperfect obligation, capable of assertion through the judicial power, or requiring legislative action to perfect them, they are secured and established in right. And the commissioners, being empowered to deal with these questions according to justice and equity, can dispose of them, unembarrassed by considerations which might arrest the action of the ordinary judicial tribunals, and require a resort to the power of legislation. In my judgment, then, as well for the reasons I have stated as for others ably set forth in the argument of the claimants, the possessory rights of the Hudson's Bay Company included all their rights, save those which related solely to government and administration.

Upon the duration of their enjoyment of those rights the language of the treaty imposes no limit. They did not derive them from the exclusive license to trade with the Indians. The force of that license was the exclusion of others. Had it failed of renewal before the treaty, none of their rights would have fallen with it, save those of government and

administration. They would have remained in possession of the lands they occupied, of the right of trade in general, and of the right to trade with the Indians in common with all other British subjects and American citizens. And if the government of Great Britain had seen fit to assert its legal ownership of the lands possessed by the company, it could not have done so, consistently with equity and justice, without providing compensation.

All these rights were preserved to the company, in my judgment, by the treaty; and the corresponding obligations were assumed by the United States.

Upon the question whether these rights have been respected as the treaty required, I do not propose to go into detail. No one who reads the history of the affairs of the company, as related in the evidence, from the time of the treaty to the time when they by virtual compulsion abandoned their establishments south of the American line, can fail to feel that such respect as was in fact received was scarcely commensurate with the extent of the obligations of the government of the United States. This result was due, in my judgment, in great part to an erroneous view by the government of the United States of the extent of its obligations. It seems to have assumed that it had no duty in the premises, but to leave the company to the assertion of its rights in the ordinary tribunals of the country; and that it was at liberty to confine them to such rights as were thus capable of assertion; and it finally arrived at the conclusion that all the rights of the company terminated with the expiration of the period named in its exclusive license to trade. I do not find that, from the time of the treaty to the present, the company has voluntarily abandoned any part of its possessions or rights, and I cannot, therefore, on any such ground, diminish at all the measure of redress to which I conceive the company to be entitled.

Coming, then, in the last place, to the question of the adequate money consideration spoken of by the treaty for the transfer to the United States of all the rights and claims of the Hudson's Bay Company, under the third article, I encounter serious embarrassments. The testimony, which is exceedingly voluminous, and drawn on each side from every source that could throw light upon the subject, and which has been presented to us in all its aspects with masterly ability, gives a very great range of values as applicable to the possessions of the company. From a mere trifle on the one side, all the way to the enormous sum demanded in the claimants' memorial on the other, almost any sum could be supported by testimony, free from criticism, affecting either the fidelity or intelligence of the witnesses. Under these circumstances, I have endeavored, as well as I could, to arrive at an amount which should do injustice to neither party. Upon comparing my views with those of my colleague, after we had each separately deliberated upon the evidence, I found that we differed in amounts, and in the directions in which our views might naturally be expected to incline.

In every inquiry in respect to such a subject as value an uncertainty necessarily exists as to the correctness of any particular determination. When upon examination, however careful, a value is set, it is not certain that the decision is free from error to a greater or less extent, and the limit of this possible or probable error will be greater or less, according to the number and relative certainty of the several elements which enter into the calculation. Taking this view of the difference between my colleague and myself, I could not feel so sure of the absolute correctness of my own valuation as to warrant me in refusing to yield in the direction of his strong convictions, within what I conceived to be

the limits of my possible error, especially as I found him not unwilling on his part to give due weight to the like considerations.

I considered, moreover, the period which has elapsed even since the treaty of July 1, 1863, during which the claimants have been unavoidably delayed in the receipt of their compensation, as properly bearing upon the amount now to be allowed. Upon these grounds I have concluded to unite in an award of four hundred and fifty thousand dollars in gold coin of the United States, to be paid according to the terms of the treaty, as being the adequate money consideration mentioned in the treaty for the transfer to the United States of all the possessory rights and claims of the Hudson's Bay Company, under the third article.

It should be added that, our jurisdiction relating only to the third and fourth articles of the treaty of Oregon, we have not considered in any aspect the navigation claims of the Hudson's Bay Company, which are provided for in the second article.

Much that has been said in the discussion of the claims of the Hudson's Bay Company is also applicable to the consideration of those of the Puget Sound Agricultural Company.

Upon the language of the fourth article a question is raised whether that company is not bound to show a title anterior to the treaty, valid in law against the government of Great Britain. It is based upon the fact that the treaty speaks of farms, lands, and other property "belonging" to the company, and which it declares shall be confirmed to them.

The argument in favor of the construction of the treaty which I have adopted in the Hudson's Bay Company's case is broad enough to include this also, and to impose upon us, as a duty, the application of these terms of the treaty to the farms, lands, and other property at the time in the apparent ownership of the Puget Sound Agricultural Company. There was never any grant of lands by the British government to this company, a fact in the knowledge of both governments, and the construction contended for would render the provision of the treaty illusory.

If I may quote authority upon such a point, Vattel says, (Law of Nations, book 2, ch. 17, § 283:) "We do not presume that sensible persons had nothing in view in treating together or in forming any other serious agreement. The interpretation which renders a treaty null and without effect cannot, then, be admitted. It ought to be interpreted in such a manner as that it may have its effect, and not to be found vain and illusive. It is necessary to give the words that sense which ought to be presumed most conformable to the intention of those who speak." In illustration of these principles he instances the case of the Athenians, who, after having promised to retire from the territories of their enemy, remained in the country under the pretense that the lands actually occupied by their army did not belong to the enemy. He rejects this interpretation in language more energetic than I wish to cite, and declares that by the territory of the enemy ought manifestly to have been understood everything comprehended in their ancient limits, without excepting what had been seized during the war.

Upon these principles of interpretation I have no hesitation in saying that the intent of the parties, as manifested by the terms employed, included all the lands which apparently belonged to the company. The term "belonging" is not a condition, and imports none into the provision. It is used merely as a part of the descriptive designation of the property intended. A question is also presented as to the extent of the possessions of the company, and the outward *indicia* of property necessary to bring any particular lands within the terms of the treaty.

It should not be forgotten that at the period when the treaty was

made the possessions of the United States on the Pacific coast were comparatively of trifling importance. California had not been acquired, gold had not been discovered, and the actual population of American citizens was very small. Apart from the occupation by the two companies whose claims are before us, most of the country was vacant. To require, under these circumstances, such evidence of appropriation and possession as are usual in settled countries, would be very unreasonable. In settled countries such evidence is required, because inclosures and other like marks of ownership are the usual attendants upon proprietorship, and serve as notice to others who may have or claim conflicting rights. In this wilderness they would have been mainly useless for any purpose of enjoyment by the company of their lands, and idle for any other purpose. It is enough if their lands were possessed in any sense, by such appropriation to the uses of the company as their circumstances called for. They had farms within inclosures, and they grazed their extensive herds of cattle over certain portions of the territory near their main establishments, and included all these lands within what they regarded and used as their possessions before the treaty.

I am satisfied, from the evidence, that their claims to lands both at Cowlitz and at Nisqually are not after-thoughts as to their extent, but are substantially in accordance with the fact as it existed at the time of the treaty. Two considerations strengthen me in this conclusion. The first is, that were their possessions so limited in extent as is claimed on behalf of the United States, they could not have been deemed, in the then condition of the country, of enough consequence to require a provision looking to their becoming of public and political importance, and providing in that event for their acquisition and purchase by the United States. It is only to a tract of country of considerable extent that such terms can have been thought applicable. This is not a mere power of eminent domain, by which public necessity is provided for upon compensation made. It is political importance which was in view.

The next is, that the United States has never proceeded to confirm to this company any lands whatever, as they stipulated that they would. In the absence of such action on their part, I think it my duty to extend to the company the benefits of any doubts which may possibly exist as to the precise extent of their possessions at the time of the treaty.

I find no evidence that this company has ever voluntarily submitted to any dismemberment of its possessions; and though it has, in fact, been deprived of much the greater part of all its lands, I must consider its rights as standing unaffected by everything which has taken place since the date of the treaty.

In considering the amount which ought to be paid by the United States for the extinguishment of its claims and the acquirement of its rights, I feel myself pressed upon by considerations of a like nature to those which I have mentioned in discussing the claims of the Hudson's Bay Company. The same diversity of testimony, and the same difference of views between myself and my colleague, as to questions of value, have existed in this case as in that, and the same process of reasoning and reflection have led me to unite with him in awarding to the Puget Sound Agricultural Company the sum of two hundred thousand dollars in gold, to be paid according to the terms of the treaty, as the adequate money consideration for the transfer to the United States of all the possessory rights and claims of the Puget Sound Agricultural Company, under the fourth article of the treaty of Oregon.

In conclusion, I think it due to the distinguished gentlemen who, as counsel, have represented before us the United States and the claimants,

to express my deep sense of the service they have rendered to the commissioners in the discharge of their duties. The thorough presentation of the case by evidence, and the full, able, and enlightened discussion of all the topics involved on either side, have greatly lightened our labors. And if the results at which we have arrived shall prove not wholly unsatisfactory to the parties interested, we shall feel that it is in no small measure due to the assistance we have thus received.

ALEXANDER S. JOHNSON,
Commissioner on the part of the United States.

WASHINGTON, *September 10, 1869.*

BRITISH AND AMERICAN JOINT COMMISSION ON THE HUDSON'S BAY AND
PUGET SOUND AGRICULTURAL COMPANIES' CLAIMS AGAINST THE
UNITED STATES.

OPINION OF THE HON. JOHN ROSE, COMMISSIONER ON THE PART OF
HER BRITANNIC MAJESTY.

In the matter of the claim of the Hudson's Bay Company.

In entering upon the duty of considering the case of the Hudson's Bay Company as presented to the commissioners, it would appear to be unnecessary to review at length the numerous propositions stated in the memorial, and which are supported in argument by the counsel for the claimants, and controverted on the part of the United States. The counsel for the company has brought out every possible fact which could weigh in favor of the claim, and has supported his views by arguments singularly able and exhaustive. The reply on the part of the United States, in its turn, presents every aspect favorable to that government so amply that the commissioners will best discharge their functions by expressing, with as little amplitude of language as possible, the opinions they have formed on those points which are necessary to guide them to a correct conclusion.

I do not consider it expedient, in the performance of the duties imposed on the commissioners under the treaty, that we should express a separate opinion on the many important and debatable propositions that have been submitted on either side, and supported with so much ability; or that we should attempt to place a distinct value on each item in the claim of the company as it has been laid before us.

The respective counsel have left nothing to be said either in the way of argument on the legal interpretation to be given to the language of the treaty of 1846, or of comment on the very lengthy evidence bearing on the question of value.

I propose, therefore, to confine myself to a consideration of two points, viz:

1st. What were the rights of the Hudson's Bay Company as understood by the treaty of 1846? And what obligations did the United States of America thereby assume in respect of them?

2d. What is now an adequate money consideration for these rights and claims?

I. The powers of the Hudson's Bay Company, as recognized by the Crown and the Parliament of Great Britain, for many years previous to the treaty of 1846, were not merely those of a trading company. Motives of public policy on the part of Great Britain had prompted that govern-

ment to confer on the company, in the uncivilized territory over which they extended their operations, authority of a judicial, political, and quasi-sovereign character. So far from being considered as intruders on the public domain, encouragement, in the shape of exclusive rights of trade, and otherwise, was held out to the company as an inducement to carry their enterprise to regions into which they might extend, and be the representatives of British interests.

The public faith was, therefore, pledged toward the company to secure just and friendly consideration for these interests wherever the authority of England extended and in whatever form it might properly be exercised. This duty has invariably been recognized in every negotiation of an international character by which their rights could subsidiarily be affected; and from the prominence given to the position of the company in the treaty of 1846, it is evident that the duty of providing adequately for their protection was considered a paramount one by the government of Great Britain.

The rights and interests of the company could hardly be more comprehensively defined than by the expression "possessory rights." They exercised no rights which they had not acquired, and which they did not, long before the date of the treaty, possess, with the knowledge and by the sanction of the Crown. I am unable to coincide with the argument of the counsel of the United States, that the expression "possessory rights" imported only such fixed improvements on land as a tenant at sufferance might claim. I am, on the contrary, impelled to adopt, as the legitimate interpretation, the general view urged by the claimants: that it comprehended all things, corporeal and incorporeal, of an appreciable character, of which the company had the enjoyment.

It is urged, however, that during the joint occupation preceding the treaty of 1846, the United States were sovereign, *de jure*, of the country over which the Hudson's Bay Company's operations extended; that the convention of 1818 merely suspended the exercise of such sovereignty; that Great Britain could not confer, nor could the Hudson's Bay Company acquire, any rights in the interim, except those of ordinary occupants; and that the treaty of 1846 imposed no new obligation on the United States beyond what its laws extended to other persons in the unauthorized possession of its public lands.

The convention of 1818 cannot, in my opinion, be construed to recognize, in either party, an exclusive right to the territory, but, on the contrary, only to declare what the previous circumstances in relation to the country, and the concurrent statement of the two governments, imported: that the title of neither nation was clear. I do not, however, consider it necessary to found an argument on this, because the language of the treaty of 1846 seems to be clearly to imply on the part of the United States an acknowledgment of, and to concede a rightful possession and property in, the Hudson's Bay Company of the character I have defined, which the government of the United States assumed the important and substantial obligation of respecting.

This obligation their counsel contends was fulfilled if the United States government, by itself or its officers, refrained from direct violation of such rights as the treaty referred to, and permitted the company to exercise the judicial remedies customary to the country.

The claimants contend for a broader view of the duty, and that under the peculiar circumstances of the country, and the position in which the Hudson's Bay Company was placed, the attitude taken by the government and its officers in regard to the rights of the company under the treaty, and the fact that trespass and violation in every form were

practiced, showed a substantial failure to respect and accord that reasonable measure of protection to their rights which, in a treaty stipulation of this character, and with reference to rights of so peculiar a nature, one nation has the right to look for at the hands of another.

It would be productive of no practical benefit to attempt, by general rules, to define the exact measure of duty devolving on the United States in each particular case where a breach of the treaty stipulation is complained of.

It was obvious at the time of the treaty, that the position of a foreign corporation, claiming to exercise almost every right not incompatible with sovereignty in the territory of the United States, was an anomalous one, and one which would, as between any nations, and even in a maturer state of society, have given rise to innumerable difficulties that could neither be foreseen nor guarded against.

Those difficulties were aggravated in the present case by the twofold exercise of authority by the State and the Federal governments; by the rude and immature condition of society; and by the spirit of individual liberty, bordering on lawlessness, which exists in a new country. It is hardly possible to interpret the precise obligation which the words of the treaty import, without reference to the practical difficulties which subsequently arose, and which could not then but have been anticipated, and must be presumed to have been in the minds of the high contracting parties. Keeping these considerations in view, I regard the obligations of the United States under the treaty to mean that, cognizant of this state of things, they undertook the correspondingly extensive duty of seeing that the Hudson's Bay Company should not suffer from them, but that the company would be maintained in the exercise of their rights and property as fully and amply as they had been previous to the treaty.

The counsel on both sides have presented every possible aspect in which the words of the treaty might be interpreted, and they have exhibited great learning in their citation of authorities and acumen in the reasoning applicable to them. Having given the most anxious and repeated consideration to their respective views, I feel it impossible to escape from the conclusion which I have now indicated as to the character of the rights which the company possessed, and the extent of obligation assumed by the United States in respect of them.

Before entering on a consideration of the second branch of the case it is proper to notice the objection taken as to the duration of the company's rights. It is contended on the part of the United States that any rights which the company might have had were limited as to time by the licenses of exclusive trade granted by Great Britain, which finally expired in the year 1859, and that after that day the company's possession was without any color of right whatever.

I cannot acquiesce in this proposition. The licenses, in my opinion, had for object to prevent the danger to the peace of the country and the well-being of the Indians, which might have arisen from the competition of rival traders within the territory. The rights which were recognized in the company, as national pioneers, were both antecedent to and independent of these licenses.

Their occupation of the lands, their trading, their posts and other possessions, were not dependent on the licenses, which only superadded the privilege of exclusiveness in favor of the company against all but the citizens of the United States. If, at the expiration of the licenses, the British government had not seen fit to renew them, the rights, property, and interests of the company would not have been impaired, but

must have continued to be respected by the Crown on the grounds of natural justice and equity, although the company would have been deprived of the power of excluding other British subjects from trading in the country.

Such is the aspect in which, according to my judgment, the license of trade ought properly to be regarded.

II. The duty of ascertaining the adequate money consideration to be paid to the Hudson's Bay Company by the United States is one of extreme difficulty, especially if the determination of the sum is to depend on the legal appreciation of the evidence which has been submitted to the commissioners.

The claim is presented to the commissioners under certain specified heads of demand, viz:

1st. The value of the various posts of the company.

2d. The value of its trade.

3d. The value of the right of navigating the Columbia River.

4th. The loss and damage occasioned by the acts of the United States.

The means which have been afforded the commissioners of arriving at a conclusion on these points are—

1st. The opinions of numerous witnesses who have been examined on both sides.

2d. The offers that have been made, as well on the part of the United States as on the part of the Hudson's Bay Company, at various times since the date of the treaty.

3d. Other documentary evidence, and a variety of circumstances connected with the claim, bearing on the question of value, which have taken place since 1846.

With reference to the item of claim founded on the right of navigating the Columbia River, (No. 3,) the treaty under which the commissioners exercise jurisdiction empowers them to examine and decide on all claims arising out of the 3d and 4th articles of the treaty of June, 1846.

These articles relate to the possessory rights of the Hudson's Bay Company, and to the lands of the Puget Sound Agricultural Company only; and the stipulations relating to the navigation of the Columbia River are to be found in another, the 2d article of the treaty of 1846.

No reference is made to the 2d article of the Oregon treaty in that under which the commissioners hold jurisdiction. It would, therefore, appear that their functions are limited to a consideration of those claims only which arise out of the provisions of the 3d and 4th articles.

The counsel for the claimants, however, contends that, even assuming the alternative that the right cannot now be dealt with "as a distinct and independent ground of claim under the 2d article of the treaty, it is nevertheless a *possessory right*, giving an enhanced value to all the other possessions of the company."

I have given my anxious consideration to the aspect of the case with reference to the Columbia River which is thus presented, and am compelled to adopt the conclusion that dealing with any right of navigation secured by the 2d article of the Oregon treaty must be considered as *ultra vires* of the commissioners.

I, therefore, proceed to discuss the remaining three items of claim presented to the commissioners, viz: the value of the company's posts and lands, the value of the trade, and the loss and damage resulting from the acts which have been committed.

It is but due to the counsel engaged to say that the manner in which the extremely voluminous evidence has been analyzed, and the tables

and indices which have been prepared, have afforded means of reference to the commissioners which have greatly facilitated their labors, and enabled them to appreciate the testimony under the different headings in a more satisfactory way than it would otherwise have been possible to do. The difficulty of forming a correct judgment and meeting the real justice of the case is not, however, diminished.

The evidence of the claimants, if it stood alone, might be appealed to to sustain an award of more than a million of dollars, while the weight of the evidence adduced by the United States would reduce the claim to a very insignificant sum.

Offers on the part of certain functionaries of the United States were made at one time to pay \$1,000,000 for the rights of the two companies, including the navigation of the Columbia River, as expressed in the draught of a convention prepared by Mr. Webster in 1852; while at another time, in 1860, the company, through Lord Lyons, agreed to accept \$500,000 as in full of their demands.

During the negotiations various intermediate sums were named as a proper indemnity which it would be just to pay. I cannot regard these negotiations as any evidence of the appreciation by the company of the true value of their rights. The company then had well-grounded apprehension that they might receive nothing. Congress had declined to vote any sum whatever. The company no doubt feared that the treaty stipulation could only be enforced at the risk of involving national strife. They knew that private interests must succumb in the presence of, and to avert, so vast a danger, and were ready to accept anything which the British government might indicate its readiness to stand on. I am disposed, therefore, to regard the wide range of these negotiations and the diversity in the sums offered and agreed to be accepted chiefly as indicative of the desire of the executive governments of both countries to arrive at some adjustment of a national controversy, and as evidence of the extreme difficulty of forming an accurate estimate of the real value of the rights which were in dispute.

If we recur to the opinion of the witnesses as to the value of the posts and land, and of the trade, those of the claimants would fairly, and after making very ample allowance for over-estimate, justify an award considerably in excess of the lowest sum which the company was at one time prepared to accept, while in the opinion of the witnesses for the United States those items of claim are hardly of any appreciable value. It cannot be denied but that during the interval which elapsed between the date of the Oregon treaty and their final abandonment of the country the company suffered a series of wrongs in disregard of the treaty stipulations, for which indemnity is properly due to them; but it would serve no good purpose to refer in detail to these acts of aggression, or to the obstacles which from the first have been interposed in the company's way.

While I hold these general views with respect to the rights of the claimants, and to the measure of indemnity they ought to receive, I am not indifferent to the great importance of arriving at a conclusion in reference to the amount to be awarded, in which both commissioners may concur.

It is obvious that in a case of this nature, where there is ground for much honest difference of opinion both as to the law and facts of the controversy, each commissioner must be prepared to make some concession in the views he holds, if a common judgment is to be reached. There is no rule by which the testimony can be appreciated, to warrant

the conclusion that a positive sum—no more and no less—is made out in proof. Upwards of one hundred and seventy witnesses from every part of the continent, and in every possible sphere of life, have been examined in the two claims before us; while the evidence, both documentary and other, with the arguments upon it, cover more than thirty-five hundred pages of printed matter. The number and character of these witnesses; their means of information; their disposition to view the claims favorably or the reverse; the grounds they assign in support of their opinions; the elements of value on which each relies in support of his opinion, have all to be weighed, and often with reference to facts themselves controverted. By no process of reasoning can I satisfy my mind that I ought to fix on a particular sum, above or below which, within a reasonable range, there would be error in going. I have endeavored to form some estimate of the mean sum which the several opinions of the witnesses named give; but this attempt is equally impracticable. The items in controversy are so numerous, and so varied in their character; the range over which the inquiry extends is so wide; and the nature of the interests themselves is such, that anything like precision as to value is impossible. In fine, probably no two minds could be found whose opinions on the evidence would be likely even to approximate to the same conclusion; and an unbiassed appreciation of it cannot but lead to the conviction that, within a wide range of value, there is room for possible error of judgment.

My individual opinion would have been in favor of awarding a considerably larger sum to the claimants than that in which my colleague is willing to concur. Yet the inherent difficulties of the case, to some of which I have adverted, would seem to impose on one seeking to perform his judicial functions with impartiality, and to accomplish effectual results, the duty of not pushing to the limit of irreconcilable difference the opinion he holds; but, on the contrary, of modifying his own views to some extent within the range to which the testimony may reasonably be held to apply, where he finds an honest opinion, equally strong, adverse to his.

After much anxious and lengthy comparison of opinions with my colleague, and on the fullest and most careful consideration I have been able to give, I believe it to be my duty to acquiesce in the sum of four hundred and fifty thousand dollars in gold, as an adequate money consideration to be paid to the Hudson's Bay Company for the transfer of the rights and claims to the government of the United States, specified in the treaty of the 1st July, 1863, and do award that sum to be paid accordingly in terms of the said treaty.

JOHN ROSE,

Commissioner on the part of her Majesty.

WASHINGTON, September 16, 1869.

In the matter of the claim of the Puget Sound Agricultural Company.

In considering the claims of the Puget Sound Agricultural Company, the same observations of a preliminary nature, which are made in the opinion expressed in the case of the Hudson's Bay Company, will equally apply. The arguments on both sides in that case may be read in connection with those offered in the present. The same tribute must be paid to the clear, exhaustive, and able manner in which the case of the claimants has been presented in argument; to the lucid arrangement of

the testimony; and to the facility which has thus been afforded the commissioners for a right apprehension of its merits.

The duties of the counsel for the United States have been performed with equal ability, and it may, without exaggeration, be stated, that on neither side has a single point been unnoticed which could in the one case support or in the other tend to destroy the merits of the demand.

The 4th article of the Oregon treaty provides that the farms, lands, and other property of every description belonging to the company, on the north side of the Columbia River, should be confirmed to them; but that "in case the situation of those farms and lands should be considered by the United States to be of public and political importance, and the United States government should signify a desire to obtain possession of the whole or any part thereof, the property so required shall be transferred to the said government at a proper valuation to be agreed upon between the parties."

The two points which now present themselves for adjudication seem to me to be—

I. Of what do the farms, lands, and other property consist?

II. What is an adequate money consideration for their transfer?

The claimants aver the property to consist of—

1st. A tract at Nisqually, containing about 167,040 acres, with buildings and improvements;

2d. The lands at the Cowlitz River, containing about 3,572 acres, with buildings and improvements;

3d. Live stock driven away or destroyed, and other personal property, for the loss of which they claim compensation.

The counsel for the United States, however, takes issue on the existence of the legal status of the company, averring it to be a fraudulent and illegal offshoot of the Hudson's Bay Company; denies that the treaty acknowledges any property whatever in the company, confirming only to it such property as it may prove lawfully belonged to it; insists that the proof of lawful ownership is in no way dispensed with; contends that if any compensation at all is due, it must be confined to improvements only, and to those on lands actually inclosed; that no claim can be preferred under the treaty for loss of live stock or other personal property; but that if any loss in respect of these had been sustained, the company could only have recourse to the courts of law, like other inhabitants of the Territory of Washington.

I have read and considered with much care the ingenious arguments, and the numerous authorities offered, to sustain these several propositions. I fail to be convinced of the legal incapacity of the company to acquire property. I can see no ground whatever for attributing to it any fraudulent or even questionable character. I consider that the treaty of 1846, as well as that of 1863, conceded beyond all doubt, both in spirit and in explicit terms, the right of the company to possess its lands and property north of the Columbia River.

The only questions involving serious difficulty or embarrassment in my mind are to ascertain the extent and boundaries of the farms, lands, and other property of the company, and to decide as to what is the proper valuation, or adequate money consideration, to be paid on their transfer to the United States.

The sources to which the commissioners have to look for guidance, in endeavoring to arrive at a just conclusion on these points, are substantially the same as those to which reference has been made in the case of the Hudson's Bay Company.

The same difficulties attach to an intelligent appreciation of the evi-

dence offered in this case as in that, whether we refer to the opinions and assertions of witnesses; to the weight to be attached to the offers of compromise; or to the several facts (such as the assessed value for taxation by the local authorities of the property) enumerated in the evidence as bearing both on the question of extent and value.

The position of the Puget Sound Company under the treaty of 1846 was equally anomalous and unsatisfactory with that of the Hudson's Bay Company. It had, in addition, to wait for the signification of a desire on the part of the United States to acquire its lands and property; and it was, in the mean time, subject to the inroads of settlers claiming under the local law.

It was exposed to the same recurring acts of aggression, against which it was difficult to obtain protection from the local tribunals; and the testimony produced by the claimants evinces a state of popular feeling within the Territory, against which it seemed, from the outset, hopeless for the company to contend. There is much force in the argument that the United States, standing in the double relation of sovereign of the newly acquired territory and purchaser at option of the land, ought not to have the advantage of any depreciation consequent on its own acts. While giving due weight to this aspect of the case, it would perhaps be of little avail, practically, to refer in detail to the difficulties which beset the company from the year 1846 downwards, and which are so pointedly enumerated in the evidence before the commissioners. I propose to content myself with stating, in general terms, the views I have formed touching the character and extent of the property for which indemnity ought to be given, and what I think has been shown to be the proper valuation and measure of indemnity in respect of it.

I have already stated it to be my opinion that the title was recognized by the high contracting parties to be a right of ownership in the company, and that the use of the word "belonging" did not, as contended for by the United States, imply a restriction to such property as the company could prove a legal title to or ownership in. The extent of its possessions, however, was left undecided, and that question now presents considerable difficulty in forming a correct judgment with reference to it.

The company carried on the work, not only of farming, but of raising sheep and cattle. That business required the occupation and use of large tracts for pasturage; and this state of things was known at the time of the treaty of 1846. That treaty makes use of language which is manifestly intended to include the lands and all the property of every description which the company used or possessed; and I cannot accept the modified interpretation contended for by the United States, that it meant to confirm only what the company could prove a legal ownership in, or that in any case its claim must be confined to such land as was actually inclosed. The company had no different title to the lands within inclosures, from what they had to those over which their pastoral occupations extended. Both rested on the fact of possession and use. Inclosures were unnecessary either for the convenience of the company's business, or as evidence of possession in them, for there were no other occupants in the country. They alone possessed, and the segregation of what they possessed by defined boundaries from other tracts was a form wholly unsuited to the primitive condition of the territory. It is evident that in the contemplation of both parties this property was understood to be extensive, for it is anticipated in the language of the treaty that they might be of public and political importance. I am, therefore, of opinion that the estimate of value should extend to, and be held to

include, all the lands in the geographical tract at Nisqually, which the company used for its agricultural and pastoral purposes.

The farm and establishment at Cowlitz offer less difficulty as to the question of boundary and extent; and I think the claimants have made out a satisfactory case to the possession of about three thousand acres there.

It will be seen from the construction which, in my judgment, should be given to the treaty, with reference to the extent of the company's property for which indemnity is rightly due—viz: that it comprehends all that the company possessed for agricultural as well as for pasturage purposes—that applying the evidence of record to those principles of construction, the measure of indemnity should be a large one.

I make due allowance for exaggeration of opinion on the one side and undue disparagement on the other; and I appreciate the objections which attach to adopting, as an absolute criterion of value, the assessment by the local authorities of the company's property at Nisqually.

The intrinsic difficulties in the way of a just estimation, after a close and rigid scrutiny of the evidence, are very great, even if there were no controversy on the construction of the treaty, as to the items to which the evidence should apply.

A comparison of views by the commissioners has served but to show how great the difference of judgment may be on the conflicting and varied state of facts presented, even when no other influence than that of a single-minded desire to appreciate it intelligently and impartially inspires them.

The rule which they have thought it their duty to be guided by has been to form what the separate judgment of each pointed at, as a fair estimate of value; and then, after discussion, that each should acquiesce in such a reasonable modification of opinion, within a certain range of value, as might be necessary to arrive at a common conclusion. This would seem to be the only alternative open, but that of remitting the case to the single judgment of the umpire.

While, therefore, according to my individual judgment, the measure of compensation ought to be sensibly larger than that which is arrived at, I have, on the whole, though with some misgivings, felt it the part of duty to acquiesce in a modified amount, in order that the united award of the two commissioners might set at rest a controversy which has been already prolonged to an extent seriously injurious to the interests affected by it. I, therefore, decide that the adequate money consideration to be paid by the United States of America to the Puget Sound Agricultural Company for the transfer of their rights and claims to the United States, is two hundred thousand dollars in gold, and do accordingly award that that sum shall be paid, according to the terms of the treaty.

JOHN ROSE,

Commissioner on the part of her Majesty.

WASHINGTON, September 10, 1869.

AWARD.

At a meeting of the commissioners under the treaty of July 1st, 1863, between the United States of America and her Britannic Majesty for the final settlement of the claims of the Hudson's Bay and Puget Sound Agricultural Companies, held at the city of Washington on the 10th day of September, 1869,

PRESENT:

ALEXANDER S. JOHNSON, commissioner on the part of the United States of America;

JOHN ROSE, commissioner on the part of her Britannic Majesty.

The commissioners having heard the allegations and proofs of the respective parties, and the arguments of their respective counsel, and duly considered the same, do determine and award that, as the adequate money consideration for the transfer to the United States of America of all the possessory rights and claims of the Hudson's Bay Company, and of the Puget Sound Agricultural Company, under the first article of the treaty of July 1, 1863, and the third and fourth articles of the treaty of June 15, 1846, commonly called the Oregon Treaty, and in full satisfaction of all such rights and claims, there ought to be paid in gold coin by the United States of America, at the times and in the manner provided by the fourth article of the treaty of July 1, 1863, on account of the possessory rights and claims of the Hudson's Bay Company, four hundred and fifty thousand dollars; and on account of the possessory rights and claims of the Puget Sound Agricultural Company, the sum of two hundred thousand dollars; and that, at or before the time fixed for the first payment to be made in pursuance of the treaty and of this award, each of the said companies do execute and deliver to the United States of America a sufficient deed or transfer and release to the United States of America, substantially in the form hereunto annexed.

In testimony whereof, we, the said commissioners, have set our hands to this award in duplicate, on the day and year and at the place aforesaid.

ALEXANDER S. JOHNSON,

Commissioner on the part of the United States.

JOHN ROSE,

Commissioner on the part of her Britannic Majesty.

FORM OF DEED.

KNOW ALL MEN BY THESE PRESENTS: That the Puget Sound Agricultural Company, in pursuance of the award of the commissioners, under the treaty between her Britannic Majesty and the United States of America, of the first day of July, 1863, which award bears date September 10, 1869, doth, by these presents, transfer to the United States of America all the possessory rights and claims of the said company mentioned and specified in the first article of the said treaty, and in the third and fourth articles of the Oregon treaty, therein referred to; and also doth, by these presents, release unto and in favor of the United States of America all claims and demands founded upon, or growing out of, the aforesaid provisions of the said treaties, or the possessory rights and claims of the said company hereinbefore referred to.

In testimony whereof, the Puget Sound Agricultural Company have, in due form of law, executed this deed at London, this — day of —, eighteen hundred and —.

The same form of deed, *mutatis mutandis*, is to be executed by the Hudson's Bay Company.

PAPERS

RELATING TO

THE CONCESSION FOR A SUBMARINE CABLE, MADE BY THE FRENCH GOVERNMENT TO THE BARON ERLANGER AND MR. JULIUS REUTER.

LIST OF DOCUMENTS.

Terms of the concession by France to the Société du Cable Transatlantique.

Mr. Fish to Count Faverney and to Mr. Thornton, with an accompaniment, July 10, 1869.

Mr. Thornton to Mr. Fish, July 10, 1869.

Mr. Fish to Governor Claflin, July 14, 1869.

Count Faverney to Mr. Fish, July 16, 1869.

Mr. Watson to Mr. Fish, July 16, 1869.

Messrs. Duncan, Sherman & Co. to Mr. Fish, July 19, 1869.

Mr. Davis to Mr. Watson, July 23, 1869.

Mr. Fish to Mr. Washburne, No. 25, July 30, 1869.

Mr. Hoffman to Mr. Fish, No. 38, August 13, 1869.

Mr. Washburne to Mr. Fish, No. 60, September 18, 1869.

Mr. Washburne to Mr. Fish, No. 72, October 5, 1869.

Mr. Fish to Mr. Washburne, November 23, 1869, with an accompaniment.

TRANSLATION OF CONCESSION ("CAHIER DES CHARGES") FOR THE ESTABLISHMENT OF A SUBMARINE LINE OF TELEGRAPH BETWEEN FRANCE AND THE UNITED STATES OF NORTH AMERICA.

The concession of a submarine line of telegraph between France and the United States of America will be made at the office of the director general of telegraph lines on the 6th of July, 1868, at two o'clock in the afternoon, to the persons whose tender shall offer the greatest reduction on the term of twenty years, mentioned in the second article of the present "cahier des charges," and upon the tariff of one hundred francs, mentioned in the fourth article.

First. The line will commence at Brest, and terminate at some point of the coast of the United States of America between Boston and New York. It will not touch on its course the territory of any foreign state, but may pass by St. Pierre, Newfoundland, French territory; it must be completed and in working order by the 1st September, 1869.

Second. The government engages not to grant other concessions for lines between France and North America during a maximum period of twenty years from the 1st of September, 1869.

Third. The rules of the telegraphic convention of Paris, or of any other international convention which may be hereafter substituted for it, shall be adopted on this line.

Fourth. The tariff for messages of twenty words through the length of the cable shall not exceed one hundred francs.

Fifth. This tariff shall be reduced by one-half for government dispatches, which shall have precedence.

Sixth. The government reserves to itself the right of establishing, at the expense of the concessionaires, such control over the service of the line as it may judge convenient; for this purpose the service of the line shall have its office in one of the rooms belonging to the telegraph office of Brest, the rent of which room shall be repaid to the state by the concessionaires. The clerks of the telegraph office of the state shall be the indispensable intermediaries between the public and the agent of the concessionaires in the transmission of messages. The messages received by the cable shall be immediately handed to them and be delivered through their agency; the messages to be transmitted by the cable shall, in like manner, be lodged with them and handed by them to the agents of the concessionaires.

Seventh. The company which will be formed by the concessionaires cannot amalgamate with any other company, whether French or foreign, having a concession for a transatlantic cable, nor transfer or lease its line without permission from the government.

Eighth. If, during the duration of the concession, one cable shall become insufficient, by reason of the traffic or from any other cause, the concessionaires shall be bound to lay down a second within eighteen months after notice given to them by the administration, unless they prefer to renounce the privilege belonging to them according to article 2d of the present "cahier des charges." In the latter case they shall make known their decision within three months from the above-mentioned notice. The course above stated will be followed with reference to all other supplementary cables which may have to be laid.

Ninth. If, during the duration of the concession, telegraphic communication shall be interrupted for a consecutive period of eighteen months, the privileges granted in favor of the concessionaires shall *ipso facto* cease, and the government shall resume the right of granting such other concessions as it may desire.

Tenth. No one shall be admitted to tender, without being previously approved by the minister of the interior, and unless he has paid at the *caisse des dépôts et consignations* at Paris caution money to the amount of five hundred thousand francs. The parties tendering shall prove the payment of this caution money by annexing to their tender a certificate issued by the *caisse des dépôts et consignations*.

Eleventh. The concessionaires shall be bound to prove between this date and the 15th of September next the legal constitution of their company with a capital of twenty-seven million five hundred thousand francs, and also the subscription for the whole of the shares amounting to this capital. In default of their fulfilling this condition, their caution money shall belong to the state and the concession annulled. In case the concessionaires, after having made studies, should find this sum insufficient, they will be allowed to increase the capital to the sum of forty million francs.

Twelfth. An agent of the administration of telegraph lines shall be admitted to the factory where the transatlantic cable will be made as often as the administration may demand it of the concessionaires. The administration may also commission one of its agents to examine when finished, and put on board the cable. The cost of this inspection shall be borne by the concessionaires.

Thirteenth. The caution money paid by the concessionaires shall be repaid when the cable, complete and put on board ready to be sub-

merged, and shall be acknowledged to be in good condition by the administration.

Fourteenth. The non-compliance by the concessionaires with any of the articles of the *cahier des charges* involves *ipso facto* withdrawal of concession.

Fifteenth. The tenders, which must be written on stamped paper and in accordance with the form below, must not contain any restriction or reserve, on pain of nullity. They shall contain an election by the concessionaires of a domicile at Paris for all acts relative to the concession. The tenders, inclosed under envelopes sealed with wax, shall be put in the hands of the director general of telegraph lines at the time of adjudication. In case any tender is signed by procuration, the person signing shall annex a notarial copy of his power of attorney. Tenders made by telegraph will not be accepted. If none of the offers are below the figures fixed in articles two and four, the competitors may be admitted then and there to make fresh offers. These fresh offers shall be written at the foot of their tenders and set forth in the *proces verbal*.

Sixteenth. Reductions on the maximum tariff of messages can only be of five francs or multiples of five francs. Reduction in the duration of the concession can only be for one or more years without fraction. A reduction of one year will be considered equivalent to a reduction of five francs.

Seventeenth. Any dispute which may arise between the concessionaires and the government on the subject of the execution, or of the interpretation, of the present *cahier des charges* shall be decided administratively by the council of the prefect of the department of the Seine, with appeal to the council of state.

Eighteenth. The stamp duty and the fixed registration duty shall be borne by the concessionaires.

Approved, Paris, June 23, 1868.

Minister of the Interior,
PINARD.

The Director General,
VISCOUNT H. DE VOUGY.

PROCES-VERBAL, MINISTRY OF INTERIOR GENERAL DIRECTOR OF TELEGRAPHS—PROCES-VERBAL OF THE CONCESSION OF A TRANSATLANTIC CABLE BETWEEN FRANCE AND THE UNITED STATES OF NORTH AMERICA.

The 6th July, 1868, at 2 o'clock p. m.

In conformity with the decision of his excellency the minister of the interior, dated 23d June, 1868, the director general of telegraph, assisted by M. M. Baron Amiot, inspector general, Raymond, inspector, and G. La'boussiere, sub-inspector secretary, proceeded to the concession of a submarine telegraph line between France and the United States of North America. The proceedings were opened at two o'clock; one tender only was placed in the hands of the director general, and opened at five minutes past two; the Baron Erlanger and Mr. Julius Reuter, the parties tendering, engage to complete the submarine communication on condition of obtaining an exclusive privilege for twenty years and fixing the maximum tariff applicable to messages of twenty words at 100 francs. They further engage to fulfill all the clauses and conditions of the *cahier des charges* drawn upon the 23d of June by his excellency the minister of the interior. Annexed to their tender was a receipt from the *caisse des depots et consignations*, showing the payment

made by them of the caution money of 500,000 francs, required by the tenth article of the cahier des charges. The Baron Emile D'Erlanger and Mr. Julius Reuter, having complied with all the conditions fixed by the cahier des charges, are declared concessionnaires. Their tender remains annexed to the present proces-verbal, which will be submitted for approval to his excellency the minister of the interior.

Done at Paris the day, month, and year above stated.

The Director General,

VISCOUNT H. DE VOUGY.

The Inspector General,

BARON AMIOT.

The Inspector,

RAYMOND.

The Sub-inspector Secretary,

G. LA'BOUSSIERE.

Approved, Paris, 8th July, 1868.

Minister of the Interior,

PINARD.

Examined, *the employé*, J. Rissot.

*For authentication, the Director of Transmissions,
in charge of the first section of the Cabinet,*

O. PERNELLE.

Mr. Fish to Count Faverney and to Mr. Thornton.

DEPARTMENT OF STATE,

Washington, July 10, 1869.

SIR: I have the honor to ask your attention to the subject of a trans-Atlantic telegraphic connection which it is understood is expected to be made between the empire of France and the shores of the United States by means of a cable, to be laid under the auspices and in the proprietorship of a British private corporation, and under authority of a concession from the government of France. The project of this enterprise embraces a connection direct from the coast of France to the island of St. Pierre, and thence to a point on the Atlantic coast of the United States. It is only, of course, in respect to this last division of the projected cable connection between the territory of France and of the United States that I have occasion to ask your attention to the views of this government as to its authority and duty in the premises.

It is not doubted by this government that the complete control of the whole subject, both of the permission and the regulations of this mode of foreign intercourse, is with the government of the United States; and that however suitable certain legislation on the part of a State of the Union may become in respect of its proprietary rights in aid of such enterprises, the entire question of the allowance or prohibition of such means of foreign intercourse, commercial and political, and of the terms and conditions of its allowance, is under the control of the government of the United States.

As the projectors of the enterprise now in progress have not received or awaited the permission of this government either to the establishment of this telegraphic connection or to its use for such intercourse with the coast of France, I have thought it proper to call the attention

of the diplomatic representatives of the two powers under whose authority the private rights involved have been acquired, to the position and authority of this government on the subject.

In thus distinctly notifying you that, in the absence of the assent to or concurrence in the proposed telegraphic connection of the government of the United States, the proceedings of the parties interested must be taken in submission to the authority of this government in the premises, I am actuated as well by a desire that these private interests should not suffer unnecessary disappointment as by the purpose to place before you the authority of the United States on the general subject in its proper light.

The policy of this government in respect to the allowance and regulation of foreign telegraphic intercourse received very deliberate consideration from Congress during its session of the last winter, and a bill covering the whole subject was sustained and passed in the Senate, but at so late a day of the session as to have failed to be reached in the House of Representatives. It is quite probable that this bill announces the policy and purpose of Congress, and the propriety of its provisions can hardly fail to secure assent. I therefore beg to call your attention to the inclosed copy of the bill, as probable evidence of what conditions of permission and of regulation of foreign telegraphic intercourse are to be insisted upon by the United States.

Accept, sir, the renewed assurance of my very high consideration.

HAMILTON FISH.

COUNT FAVERNEY, &c., &c., &c.

Same, *mutatis mutandis*, to Mr. Thornton.

A BILL relating to telegraphic communication between the United States and foreign countries.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever communication shall hereafter be established between the United States and any foreign country by means of telegraphic or magnetic lines or cables laid in any part thereof, in and over the waters, reefs, islands, shores, and lands within the jurisdiction of the United States, the same shall be subject to the following conditions, stipulations, and reservations, to wit:

First. The government of the United States shall be entitled to exercise and enjoy the same or similar privileges, with regard to the control and use of any such line or cable, and the lines or cables connected therewith, that may by law, agreement, or otherwise be exercised and enjoyed by any foreign government whatever.

Second. The United States government shall at all times be entitled to the use of any such line or cable, and the lines or cables connected therewith, by a telegraphic operator of its own selection, to transmit any messages to and from its military, naval, diplomatic, and consular agents; and such messages shall be entitled to take precedence of all other messages.

Third. The rates to be paid for the transmission of any such message or messages, when not otherwise fixed by agreement, shall be established by the Postmaster General of the United States.

Fourth. The lines of any such lines or cables shall be kept open to the public for the transmission for daily publication of market and commercial reports and intelligence, and all messages, dispatches, and communications shall be forwarded in the order in which they are received, except as hereinbefore provided.

Fifth. It shall be at all times within the power of Congress to determine the rates to be charged for the transmission of messages and communications over any such line or cable, and to fix and establish such rules and regulations in relation thereto as it may judge necessary.

Sixth. Before extending and establishing any such line or cable in or over any waters, reefs, islands, shores, and lands within the jurisdiction of the United States, a written acceptance of the terms and conditions imposed by this act shall be filed in the office of

the Secretary of State by the company, corporation, or party proposing to establish telegraphic communication.

SEC. 2. *And be it further enacted*, That, subject to the foregoing conditions, stipulations, and reservations, the consent of Congress is hereby given to the laying and maintaining of telegraphic or magnetic lines or cables between the United States and foreign countries, in and over the waters, reefs, islands, shores, and lands within the jurisdiction of the United States; subject, however, to any and all rights of property and State jurisdiction in and over the same: *Provided*, That the privileges conferred by this act shall not be enjoyed by any company or persons whose line or cable, by its connections or otherwise, terminates in or extends to any foreign country in and by which similar privileges are not conferred upon companies incorporated by the authority of the United States or of any State of this Union.

Mr. Thornton to Mr. Fish.

WASHINGTON, July 10, 1869.

SIR: I have the honor to acknowledge the receipt of your note of today's date relative to the transatlantic telegraphic communication which is being made between France and the United States, and I shall not fail to forward a copy of it to her Majesty's government. In the mean time I have addressed a letter upon the subject to the company's agent, who, as I believe, is now at New York, in order that he may be acquainted with the views of the government of the United States with regard to the landing of the cable on the shores of this country.

A considerable amount of English capital is employed in this work, and as it cannot but be advantageous to the United States that the means of rapid communication with Europe should be multiplied, I venture to express my hope that an understanding may be come to upon the subject; and it will afford me great pleasure if my good offices may contribute to the success of so great an enterprise.

I have the honor to be, with the highest consideration, sir, your most obedient, humble servant,

EDWARD THORNTON.

Hon. HAMILTON FISH, &c., &c., &c.

Mr. Fish to Governor Claflin.

DEPARTMENT OF STATE,
Washington, July 14, 1869.

SIR: I have the honor to transmit for your excellency's information a copy of a note which, on the 10th instant, I addressed to Count Faverney, the chargé d'affaires of France, and to Mr. Edward Thornton, C. B., the British minister accredited to this government, upon the subject of the extent of the authority and control which the government of the United States reserves to itself concerning the submarine telegraphic cable which is now being laid between France and the United States *via* St. Pierre, and other similar cables which may be established between this and foreign countries.

I have the honor to be your excellency's obedient servant,

HAMILTON FISH.

His Excellency WILLIAM CLAFLIN,
Governor of the Commonwealth of Massachusetts, Boston.

Count Faverney to Mr. Fish.

[Translation.]

WASHINGTON, July 16, 1869.

MR. SECRETARY OF STATE: I hasten to acknowledge the receipt of the note which you did me the honor to address me on the 10th of July with regard to the laying of the Franco-American transatlantic cable.

I have not failed to transmit this document to my government, and to give information thereof to the agent of the telegraph company, Mr. Watson.

Without entering into any discussion touching the basis of the question treated of by your excellency, I allow myself, in consideration of the amount of French capital invested in this enterprise, to express the hope that it may terminate to the mutual satisfaction of the parties interested.

Receive, Mr. Secretary of State, the assurance of my very high consideration.

COUNT DE FAVERNEY.

Hon. HAMILTON FISH, &c., &c., &c.

*Mr. Watson to Mr. Fish.*

WASHINGTON, July 16, 1869.

SIR: I have the honor to address you on behalf of the Société du Cable Transatlantique Français, whose interests I represent in the United States.

Having been informed, in the first instance, by Mr. Thornton, her Britannic Majesty's minister, and afterward by Count de Faverney, the French chargé d'affaires, of the views of the United States government as to its authority and duty regarding the proposed undertaking, I have lost no time in coming to Washington in order to confer with you upon the subject, and as the result of the interview which I had the honor of having with you this morning, in company with Count de Faverney, I beg to assure you that the French Cable Company agree to accept as the basis upon which their operations are to be conducted the provisions of the bill of which a copy was inclosed in your letter to Count de Faverney, or of such other enactment as may be passed during the approaching session of Congress with a view to regulating the operation of telegraphic cable companies connecting the United States with foreign countries.

The Société du Cable Transatlantique Français will, moreover, do their utmost to induce the government of his Majesty the Emperor of the French so far to modify the concession under which the company has been established as to permit the landing upon French soil of any cable belonging to any company incorporated by the authority of the United States, or of any State in the Union; and they further agree, on their own part, not to oppose the establishment of any such cable belonging to any company incorporated by the authority of the United States or of any State in the Union.

I have the honor to be, sir, your most obedient servant,

L. G. WATSON.

Hon. HAMILTON FISH,
Secretary of State.

Messrs. Duncan, Sherman & Co. to Mr. Fish.

OFFICE OF DUNCAN, SHERMAN & CO.,
Bankers, New York, July 19, 1869.

DEAR SIR: Understanding from Mr. Watson, agent of the Société du Cable Transatlantique Français, (limited,) that you desire our approval of the terms of his letter to your excellency, under date of July 16, we have no hesitation in giving the same.

We have the honor to remain your most obedient servants,
DUNCAN, SHERMAN & CO.

His Excellency Hon. HAMILTON FISH,
Secretary of State, Washington.

Mr. Davis to Mr. Watson.

DEPARTMENT OF STATE,
Washington, July 23, 1869.

SIR: I have the honor to acknowledge the receipt of your letter of July 16 to the Secretary of State, assuring him that the Société du Cable Transatlantique Français, (limited,) which you represent, accept, as the basis upon which their operations are to be conducted, the provisions of the bill which passed the Senate of the United States last winter, or of such other enactment as may be passed during the approaching session of Congress, with a view to regulating the operation of telegraphic cable companies connecting the United States with foreign countries, and further informing him that the société would do their utmost to induce the government of his Majesty the Emperor of the French so far to modify the concessions under which the company is established as to permit the laying upon French soil of any cable belonging to any company incorporated by the authority of the United States or of any State in the Union, and agreeing, on the part of the société, that they will not oppose the establishment of any such cable.

In reply I have to say, in accordance with the verbal assurances already given you by the Secretary of State, that having received such representations and assurances from you, no opposition will be made on the part of the government of the United States to the landing and working of the cable before the meeting of Congress in the approaching session.

I have the honor to be, sir, your obedient servant,
J. C. B. DAVIS,
Acting Secretary.

L. G. WATSON, Esq.,
Agent of the Société du Cable Transatlantique
Français, (limited,) New York.

Mr. Fish to Mr. Washburne.

No. 25.]

DEPARTMENT OF STATE,
Washington, July 30, 1869.

SIR: It is perhaps unnecessary for me to state to you, who was a member of the 40th Congress, that it came to the knowledge of that body last winter that the Emperor of the French had made a concession

of the exclusive right for twenty years of telegraphic communication by marine cable between the shores of France and the United States, and that a corporate company had been organized under the British laws to receive this concession and to construct and operate the cable under it. This concession on examination was found to contain several objectionable features, the principal of which were its exclusive character and the subjection of its messages to the supervision of officials of the French government. The chairman of the Committee of Foreign Relations in the Senate thereupon reported from that committee a bill, a copy of which is herewith inclosed, which, with slight modifications, passed that body unanimously on the second day of March last, and was in due course sent to the House of Representatives; it reached that body too late, however, to be acted on, and consequently did not become a law. The State of Massachusetts incorporated a company avowedly for the purpose of enabling the company holding the French concession to land their cable on our shores in the absence of either special or general legislation of Congress on the subject. It being brought to the attention of the President that an attempt would be made to land and operate the cable under this Massachusetts charter, he deemed it wise, out of abundant caution, to notify all parties of the policy of the United States on this subject, so far as the purposes of Congress could be gathered from the action of the Senate. Accordingly, letters identical in terms, (*mutatis mutandis*,) a copy of which is inclosed, were addressed to the British minister and to the French chargé d'affaires, and a copy was officially communicated to the governor of Massachusetts. This annunciation of the policy of the government drew from the agent and representatives of the English company holding the French concession letters, of which copies are inclosed, wherein the company agreed to accept as the basis upon which their operations were to be conducted the provisions of the bill of the Senate, or of such other enactment as may be passed during the approaching session of Congress with a view to regulating the operation of telegraphic cable companies connecting the United States with foreign countries, and wherein they further agreed to do their utmost to induce the government of his Majesty the Emperor of the French so far to modify the concession under which the company has been established as to permit the landing upon French soil of any cable belonging to any company incorporated by the authority of the United States or of any State in the Union, and further on their own part not to oppose the establishment of any such cable belonging to any company incorporated by the authority of the United States or of any State in the Union.

On the receipt of these letters the department addressed a letter to the agent of the English company, of which a copy is inclosed, saying that in consideration of those agreements on the part of that company, the government would make no opposition to the landing and working of the cable before the meeting of the approaching session of Congress, and the cable has been landed and is now in operation under this agreement between that company and the government.

The objectionable features in the organization of the present cable company are, as I have already observed, its exclusiveness and the subjection of its messages to the inspection of French government officials. I will call your attention briefly to each of these points:

1. The concession grants to the concessionaries the exclusive right for twenty years to maintain telegraphic communication by a marine cable between the shores of France and the United States. This is an assumption upon the part of France to control the maritime waters of the

United States which this government could not pass unnoticed. The President does not question the right of the government of his Majesty the Emperor to impose such restrictions as it sees fit upon telegraphic communication between the shores of France and those of any other land. He might deem the creation of monopolies for such purposes unwise, but he would not think it his province to volunteer an opinion upon the subject so long as the monopoly granted is not intended to operate within the territorial limits of the United States. But when, as in the present case, the Emperor's concession works a monopoly within the limits of the United States, restricting the enterprise of American citizens, and conferring exclusive privileges upon the subjects of his Majesty to the detriment of our own people, the duty of the government is clear, and that duty has been performed in the manner I have already stated. Although it may seem superfluous to do so, I will also add, lest the position of Congress and the President may be misunderstood, that not only Congress and the President, but the whole American people, look with deep interest upon the successful result which the spirit and enterprise of this company have achieved. Every additional means of communication between the two continents, and every new link which brings the nations of the Old and of the New World into closer relations, and which cheapens facilities of intercourse, increase the wealth and the prosperity of both. When it is settled that the success of this company does not threaten to work the establishment of a great monopoly, and the exclusion of American citizens from all participation in the honor and profits of telegraphic communication between France and the United States, the President will be the first person to hail with satisfaction the success with which the concession of the Emperor has been crowned. Fortunately, the greatest obstacle in the way of a modification of the concession has now been overcome. The exclusive or monopoly feature in the existing concession is not in the interest of either France, or of the United States, or of the commercial world. It was probably introduced as an encouragement for the benefit of the grantees of the concession, and now, by the voluntary act of the company, the exclusive privilege which was granted to them having been waived, and they having agreed to use their influence with his Majesty's government to induce them to open the shores of France to competition from the United States, it is hoped that there can be no reason why the government of his Majesty the Emperor should hesitate to rescind that feature of the concession and place the citizens and the government of the United States upon an equality with the citizens and the government of France in regard to telegraphic communication between the two countries, and to further modify the present concession in the manner which I am about to propose, to insure the permanence and the success of this enterprise.

2. The present concession is further deemed objectionable in that it subjects all messages to the scrutiny of the government officials of France. I am aware that, under the system adopted in many European countries, and possibly in France, the telegraph is a government machine, owned by the nation and operated by government officials. This government disclaims in advance any purpose of interfering with the purely domestic question of the management and operation of the land lines of France. If the Emperor sees fit to subject all messages which approach the cable at Brest, or at any other point on the coast of France with which connection may hereafter be made, to the scrutiny of the agents of the government of France, that is a matter in which this government

can have no interest beyond the natural regret that a policy should be adopted tending to decrease confidence in the line. But when the French government assumes to say that no message shall pass over the cable to or from the United States which is not scrutinized by French officials, and that the agents of the company at Brest shall in no case receive a message or deliver one which has not been first so scrutinized, they take a position in which, in the opinion of the President, this country and this government are directly interested. The President will never claim for the United States the right of scrutinizing the messages which the government of his Majesty the Emperor may see fit to transmit over the cable to their employés in America or elsewhere; nor, on the other hand, is he disposed to concede to France such a right over the messages from the government of the United States. Unless, therefore, some modification in the concession in this respect can be made, the President will feel himself obliged to advise Congress to adopt such legislation as will meet the case.

I doubt not, however, that the government of his Majesty the Emperor will feel disposed to conform to these reasonable views of the subject. They, as well as we, are interested in placing this enterprise, which has been conceived and carried out with so much good judgment and scientific skill, and with such liberal expenditure of money, upon a permanent basis, where it will command the confidence of the community and realize for its projectors the pecuniary results for which they hope. To this end you are authorized (and a power is herewith inclosed to you for that purpose) to conclude a convention with his Majesty the Emperor of the French for the regulation of telegraphic intercourse between the United States and France. You will accordingly take an early opportunity to see the minister of foreign affairs on this subject, and in your interview you will lay before him the views of the President as they are set forth in these instructions. You are authorized, at your discretion, to read this dispatch to him. The points to be treated by you in your negotiations, and the results to be reached, have been already indicated, namely:

1. Perfect equality between the two countries and their respective citizens, each government engaging to recognize telegraphic grants or concessions for interoceanic communication between the two countries which are or have been, or which shall be, made or recognized by the other government.

2. Absence of all government scrutiny over all cables and their operators.

3. All messages from each government to be privileged messages, to be forwarded in advance of the messages of other nations and of all persons, and at a rate to be from time to time fixed by the two governments; messages from the French government to take precedence in France of messages for the United States government in France, and *vice versa* in the United States.

4. A modification of the existing concession to conform to these provisions.

5. It is provided in the concession that the cable and the company shall be subject to the regulations prescribed by the telegraphic convention of Paris. You will obtain a copy of those rules, (of which we have none,) and if in your opinion they can or may operate prejudicially to the interest of the government or citizens of the United States, you will ask for a modification of the concession in that respect also.

If it be possible to advance the negotiation so that a convention may

be sent to the Senate at the opening of Congress in December, I hope it may be done. It is probable that otherwise Congress will take early action on this matter.

I am, sir, your obedient servant,

HAMILTON FISH.

Hon. E. B. WASHBURNE.

LIST OF INCLOSURES.

Senate bill No. 863, 3d session, 40th Congress.

Mr. Fish to Count Faverney and Mr. Thornton, July 10, 1869.

Mr. Fish to Governor Claflin, July 14, 1869.

Mr. Watson to Mr. Fish, July 16, 1869.

Same to same, July 19, 1869.

Duncan, Sherman & Co. to Mr. Fish, July 19, 1869.

Mr. Davis to Mr. Watson, July 23, 1869.

Full power.

Mr. Hoffman to Mr. Fish.

No. 38.]

LEGATION OF THE UNITED STATES,

Paris, August 13, 1869.

SIR. I have the honor to acknowledge the receipt of your dispatches Nos. 25 and 26, addressed to Mr. Washburne, and of 1 to 8, inclusive, addressed to myself. The instructions contained in Nos. 3 and 8 have been complied with.

In reference to No. 25, of July 30, inclosing a commission from the President to Mr. Washburne, and instructing him to enter into negotiations with the French government with a view to the celebration of a telegraphic convention between France and the United States, I have the honor to state that I have informed Mr. Washburne of his appointment, and of the desire of the President to lay such a convention before the Senate at its approaching session. Mr. Washburne will either return immediately to Paris, or he will authorize me to take the preliminary steps of notifying the imperial government of his appointment, and requesting the appointment of a commissioner upon their part, and which can be done without loss of time in Mr. Washburne's absence.

I fear that no early result from the labors of the commissioners can be looked for. The autumn in France, as in England, is the season of rest for government officials. The Emperor himself is generally absent at Biarritz, or indulging in the pleasures of hospitality and of the chase at Compeigne. The present autumn, however, may prove an exception to this general rule, as he is likely to be detained in the neighborhood of Paris by the exigencies of the proposed *senatus consultum*.

I am, sir, with great respect, your obedient servant,

WICKHAM HOFFMAN.

Hon. HAMILTON FISH,

Secretary of State.

Mr. Washburne to Mr. Fish.

No. 60.]

LEGATION OF THE UNITED STATES,
Paris, September 18, 1869.

SIR: On the 23d ultimo I notified the minister of foreign affairs that the President had invested me with authority to negotiate a treaty with the French government regulating telegraph intercourse between the United States and France, and also notified him of my readiness to enter upon negotiations as soon as the Emperor should signify his willingness to negotiate, by the appointment of a plenipotentiary for that purpose. I also suggested that if such a treaty were to be made, that the President would be pleased to lay the convention before the Senate at the opening of the approaching December session. Not having received any answer to my letter, I called on the minister of foreign affairs on Thursday last, and directed his attention to the subject. He said he had referred the whole matter to the department of the interior, to which it properly belonged, and that he would again call the attention of the minister of the interior to the subject with a view to immediate action. As there has been so much delay in this business, I have thought it proper to make this explanation to you.

I have the honor to be, very respectfully, your obedient servant,
E. B. WASHBURNE.

Hon. HAMILTON FISH,
Secretary of State.

Mr. Washburne to Mr. Fish.

No. 72.]

LEGATION OF THE UNITED STATES,
Paris, October 5, 1869.

SIR: By the copy of the letter from the minister of foreign affairs, herewith inclosed, you will perceive that the French government receives favorably the proposition to conclude a telegraphic treaty between France and the United States. As this is a matter more particularly belonging to the minister of the interior, there may be some delay in entering upon the consideration of the subject, as it is thought that the present minister, Mr. Forcade de la Roquette, will soon retire, and that he may not wish to take it up just on the eve of going out of office.

I have the honor to be, very respectfully, your obedient servant,
E. B. WASHBURNE.

Hon. HAMILTON FISH,
Secretary of State.

[Extract—Translation.]

PARIS, October 4, 1869.

SIR: In the communication with which you honored me on the 23d August, you kindly informed me that you had been invested by your government with full powers to negotiate and conclude a telegraphic treaty between France and the United States.

The government of his Majesty could only receive with gratification a proposition calculated to favor the development of the intercourse

between the two countries. I have, therefore, immediately conferred with the minister of the interior, to determine, in concert with him, the basis of an arrangement responding to the desire which you have done me the honor to express to me.

I am gratified to assure you that I hope soon to be able to advise you of the appointment of a plenipotentiary, to act, on the part of the French government, with you in the projected convention.

* * * * *

Mr. Fish to Mr. Washburne.

DEPARTMENT OF STATE,
Washington, November 23, 1869.

SIR: The President thinks the present moment favorable for the negotiation of a joint convention by the maritime powers of the world for the protection of submarine cables.

The United States have a peculiar interest in fostering the construction of these indispensable avenues of intelligence, and in protecting them against wanton injury. Its domains extend from ocean to ocean, and its commerce plies at regular intervals alike from the ports of the Atlantic and of the Pacific to the ports of Europe and of Asia. Its citizens on the shores of both oceans are in constant communication with each other across the continent both by the rail and the telegraph. This central position in the commerce of the world entitles the United States to initiate this movement for the common benefit of the commerce and civilization of all.

The features which the President desires to incorporate into the proposed convention are:

1st. Suitable provisions for the protection of such cable lines in time of peace and of war against willful or wanton destruction or injury. We have seen, during the present year, the submarine cable connecting Cuba with the United States severed, and communication through it interrupted. The President proposes to prevent similar destruction and injury hereafter by a joint declaration that such acts shall be deemed to be acts of piracy and punished as such.

2d. Suitable provisions to encourage the future construction of such lines. Experience has already shown that the assumption, by one nation, to control the connections with the shores of another, will lead to complications that may, unless arranged, result in preventing all direct telegraphic communication between the two countries. The President deems that this can be best prevented in future by providing that hereafter no exclusive concession shall be made without the joint action of the two governments whose shores are to be connected. In this way the capital of both countries will be enlisted, and at the same time possible causes of difference will be removed.

3d. Provisions against scrutiny of messages by government officials. The President thinks that the right to establish such a scrutiny in favor of the power controlling either end of the cable is calculated to lead to trouble, and had therefore better be prevented.

A draught of a convention embodying these points has been prepared, and is herewith inclosed. It will be understood, however, that this is submitted simply as a basis for future discussion, should the leading powers concur with the United States in considering the subject one for international consideration and jurisdiction.

The President desires that the representatives at Washington of Great Britain, France, Portugal, Spain, Italy, North Germany, Austria, Russia, Belgium, Holland, Sweden and Norway, Denmark, Turkey, Greece, Venezuela, Brazil, the Argentine Confederation, Colombia, Bolivia, Peru, Ecuador, Mexico, and Chili may be empowered to enter jointly and simultaneously into negotiations with the United States, and with each other, with a view of concluding a joint convention for the purposes hereinbefore referred to, and instructions identical with these are issued to the representative of the United States at each of those powers. You will, upon the receipt of this, propose to the cabinet of France to give to its minister at Washington powers to enter into such negotiations with the United States, and with the representatives of such other powers as may be empowered for that purpose, and to conclude with them such a joint convention, and you are at liberty, in your discretion, to furnish to the minister for foreign affairs a copy of these instructions and their inclosure.

I am, sir, very respectfully, your obedient servant,

HAMILTON FISH.

E. B. WASHBURN, Esq., &c., &c., &c.

[Same, *mutatis mutandis*, to the United States ministers accredited to the countries named in the instruction.]

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DRAFT OF A CONVENTION BETWEEN THE UNITED STATES OF AMERICA, ———, ———, ———, AND ———, FOR THE BETTER PROTECTION OF SUBMARINE CABLES.

The United States of America and ——— ———, each desiring to increase the means of telegraphic communication through submarine cables, and also to prevent the willful injury of such cables in parts beyond the jurisdiction of national authorities, and also to better protect the same in parts within such jurisdiction, have resolved to make a joint convention for that purpose, and to that end they have appointed as their plenipotentiaries, the President of the United States of America

and

who, after having communicated to each other their respective full powers, found in good and due form, have agreed upon and concluded the following articles:

ARTICLE I. No exclusive concession or grant of a monopoly for a submarine cable shall hereafter be made, or renewed, by either of the high contracting parties, without the consent of the other party with whose territories such concession or grant contemplates a connection.

ARTICLE II. No lines shall be laid between the territories of any two of the contracting parties, without the consent of both parties whose territories are to be directly connected by it.

ARTICLE III. Each contracting party engages that the proprietors of submarine cables which have been or may be laid under grants or concessions, made by itself or in pursuance of the provisions of its laws, shall be at liberty hereafter to receive, transmit, and deliver messages without interference or scrutiny by its agents or officers.

ARTICLE IV. Messages from each government and their diplomatic representatives are to be privileged messages, to be forwarded, in ad-

vance of all private messages, in the order of priority in which they are received.

ARTICLE V. The contracting parties further agree, that willful destruction of, or injury to, submarine cables or lines in any of the following cases, shall be deemed and taken to be an act of piracy; and that the person or persons convicted thereof may be adjudged to be a pirate or pirates, and may be punished accordingly; and that laws shall be enacted by each of the contracting parties to secure a trial in such case, and a punishment in case of conviction. The cases of willful destruction and injury, which are to be taken and deemed to be acts of piracy, are: 1st. Willful destruction or injury to any existing line or cable upon the high seas at a distance of more than one marine league from the shore. 2d. Such willful destruction or injury within one marine league of the shore to any line or cable hereafter to be laid, under a grant or concession hereafter to be made by either of the contracting parties. 3d. Destruction or injury within one marine league from the shore to any line or cable hereafter to be laid, with the consent of both nations under grants already made. 4th. Such willful destruction or injury within one marine league of the shore to any existing line or cable, unless such destruction or injury shall be made in obedience to a lawful mandate of a constituted authority of the country within whose jurisdiction the act is committed.

ARTICLE VI. In case of war the provisions of this convention shall remain in force.

ARTICLE VII. Such offenses committed on the high seas shall be punishable within the dominion of either of the governments parties hereto; all other such offenses shall be punishable in the country within which the offense is committed.

ARTICLE VIII. The provisions of Articles IV, V, VI, and VII of this convention are applicable only to such submarine cables or lines as are or may be laid connecting the territories of two or more of the governments, parties to this convention, or who shall hereafter signify their adherence thereto.

ARTICLE IX. This convention shall be ratified by the several parties, the ratification by the United States being subject to the advice and consent of the Senate. The ratification shall be exchanged at Washington within months from the date, and sooner if possible; and the convention shall continue in force as to all the parties for ten years, and thereafter for twelve months after actual notice to all parties of a purpose by any party to abrogate, in each which case it shall be abrogated only as to the party giving the notice.

In witness whereof, the several plenipotentiaries have signed this convention, and hereto affixed their seals.

Done at Washington, the day of , in the year of our Lord one thousand eight hundred and sixty-nine.

REPORT
OF
THE SECRETARY OF THE NAVY.

REPORT OF THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
December 1, 1869.

SIR: I respectfully submit the following report of the Navy Department, and the branch of the public service under its supervision, during the last year.

The head of this department has been twice changed since the sending in of the last annual report, and the report for this year must therefore include the operations carried on during that time, as well under the superintendence of Mr. Welles, (the former Secretary of the Navy,) as under that of my immediate predecessor, Mr. Borie, and myself.

Of the period extending from the date of the last annual report to the coming in of the present administration, the detailed reports of the several bureaus are naturally incomplete, and I am, of course, without authoritative information of the ideas which at that time governed the operations of the department. It becomes me, therefore, to speak of it only in general terms, and, showing simply the condition of the navy at the commencement of this administration, state only results as the surest test of principles and practice.

NAVAL FORCE IN MARCH, 1869.

When my immediate predecessor came into office, on the 9th day of March last, the navy of the United States consisted of two hundred and three (203) vessels of all classes, and in every condition.

These measured one hundred and eighty-three thousand four hundred and forty-two (183,442) tons, and were calculated to carry, when in commission, thirteen hundred and sixty-six (1,366) guns, exclusive of howitzers.

Of these ships one hundred and fifty-one (151) were wooden, and fifty-two (52) were iron-clad or monitors.

Of the wooden ships thirty-two (32) were sailing vessels; fifty-three (53) were steamers, with some auxiliary sail-power; forty-four (44) were steamers, without any efficient sail-power; and twenty-two (22) were without sail power of any kind.

The iron-clads are all steamers, relying wholly on steam under all circumstances.

Of all these classes only forty-three (43) vessels, including store-ships, mounting three hundred and fifty-six (356) guns of every calibre, were attached to fleets or returning therefrom. Six (6) more, mounting thirty-six (36) guns, were in commission for special service; and six (6) others at the various stations as receiving-ships. These, together with fourteen (14) tugs and small vessels, attached to the various navy yards and stations, constituted the whole force of the navy at that time effective for immediate service.

It has since been found necessary to offer for sale, on foreign stations,

three (3) of these vessels, which were condemned as unfit for service and unsafe to send home; and twenty-five (25) more of them have been ordered home to the various navy yards for repair and alteration, or sale. But one ship, the *Junjata*, at Philadelphia, was under repair at the time of the coming in of the present administration.

The remainder of the navy not in commission consisted of—

First. Forty-six (46) iron-clads and monitors of every class, laid up at various stations, none of which could be got ready for service without thorough overhauling and expensive repairs to hulls, turrets, and machinery, thirty-two (32) of which had been condemned and ordered to be sold, as not adapted to our service; twenty-six (26) of them never having been in commission.

Second. Twenty-two (22) vessels of every class yet on the stocks, and on which work had been suspended.

Third. Sixty-six (66) vessels laid up in ordinary, or unfit for active service in the future.

CRUISING STATIONS AND DUTIES, AND FORCE OF EACH, IN MARCH, 1869.

For the better distribution of our force the field of our naval operations is divided into five cruising stations, known respectively as the North and South Atlantic, the Pacific, the European, and the Asiatic.

The extent and limits of these stations are carefully defined, and may be readily traced; and to each are assigned such proportions of the available force as the extent and circumstances of each may from time to time require.

THE NORTH ATLANTIC STATION embraces the entire eastern coast of North America, and that of South America as far as Cape Orange, near the mouth of the Amazon, extending eastward to the forty-third degree of longitude west from Greenwich. To the squadron on this station is committed the protection of all our outward-bound and returning Atlantic commerce, when west of the forty-third degree of west longitude; our coasting trade on the Atlantic and the Gulf, and that which we carry on with the West Indies, Mexico, the northern countries of South America and the Isthmus.

It consisted on the 9th of March last of six (6) vessels, mounting in all twenty-eight (28) guns, the whole under the command of Rear-Admiral Hoff.

THE SOUTH ATLANTIC STATION embraces the east coast of South America from Cape Orange to Cape Horn, extending across from the former point to St. Paul de Loando, and along the southwest coast of Africa to the Cape of Good Hope. The squadron in charge of our important interests in these waters was, at the date last mentioned, under the command of Rear-Admiral Davis, and consisted of six (6) vessels, mounting in all fifty-six (56) guns.

THE PACIFIC STATION is one of great extent and importance, embracing the entire western coast of both North and South America, extending westward to the one hundred and seventieth degree of west longitude, and thence along the equator south of it to the one hundred and fifteenth degree east, taking in New Zealand, Australia, and New Guinea, together with the Feejee and other groups of the South Pacific Ocean. The naval force on this station is looked to for any needed protection to the interests of the government and our people in all the waters of the Pacific; to our trade along the great isthmus, and the whole coast of South America; our whaling and fishing fleets in the North Pacific; our growing commerce with the Sandwich Islands, China, and Japan; our newly acquired interests in Alaska and the adjacent islands; and to our traders,

representatives, and missionaries, scattered among the barbarous or half civilized tribes which people the Pacific groups.

On the date last mentioned, this station was divided into two squadrons, denominated the North Pacific, and the South Pacific squadrons, commanded respectively by Rear-Admiral Craven and Rear-Admiral Turner—the North Pacific squadron consisting of eight (8) vessels, mounting, in all, seventy-eight (78) guns; and the South Pacific squadron, consisting of six (6) vessels, mounting, in all, forty-nine (49) guns. Since the coming in of the present administration, for the purpose of readier communication, and to give to the small force in this extended field greater efficiency, and facility for combined action, these two stations have been consolidated into one; with a single fleet of two divisions, each under the immediate command of a commodore, with the whole under the general command of a rear-admiral.

THE EUROPEAN STATION embraces the Atlantic, with its connecting waters, north of the equator and as far west as the forty-third degree west from Greenwich, and includes the whole west coast of Europe; the Mediterranean and its communicating seas, and the coast of Africa as far as St. Paul de Loando. The squadron commanded by Rear-Admiral Radford, and consisting, at the date aforesaid, of seven (7) vessels, mounting, in all, eighty-five (85) guns, represented the naval power of our country on the coasts and in the ports of all the great nations of Western and Southern Europe, as well as those of Northern Africa.

THE ASIATIC STATION embraces the eastern coast of Asia around to Hindostan, and thence to the Cape of Good Hope; taking in Java, Sumatra, Borneo, the Philippine Islands, Japan, and the waters of Western and Southern Asia, and Western Africa. Our growing trade in the East, and the influence of our government for the spread of commerce and civilization among the people of Eastern and Southern Asia, were protected in these waters by a squadron made up, on the date last mentioned, of ten (10) vessels, mounting sixty (60) guns, under command of Rear-Admiral Rowan.

INADEQUACY OF FORCE.

It will be seen at a glance that these cruising stations comprise within their limits most of the ports and sea-coasts of the known world; and that, in thus establishing them, our government has attempted to extend its influence and protection over every field into which, allured by trade or science, or inspired by religion, an American citizen has been able to penetrate.

This, in time of peace, is an appropriate duty of our navy, and its benefits will be in proportion to the liberal spirit of the government, and the tone of the service to which its illustration is committed.

But it is also apparent that the means employed were utterly inadequate to the ends to be attained, and that our small fleet on these stations, consisting of forty-three (43) vessels, mounting three hundred and fifty-six (356) guns, with a tonnage of forty thousand and fifty-two (40,052) tons, was too small in number, and too weak in character, force, and condition to perform the service required by the ideas of the government and the expectations of our people. Cruising on the same seas and with duties not more various and extended, France has over one hundred and fifty (150) ships in commission, of a tonnage of 250,000 tons; while England has, crowded into the same area, no less than one hundred and ninety-one (191) ships, with a tonnage of 328,000 tons, with her flying squadron ready to reinforce her power whenever occasion may require.

The fleets of other nations rival, and some surpass ours in their number, size, and character; and in fact, our position on the seas was maintained only by the spirited and untiring energy of our officers, and a pervading belief in the latent resources of our country and the energies of our people.

CONDITION AND EFFICIENCY OF SHIPS ON STATIONS.

Of the forty-three (43) vessels which composed these several fleets not more than eighteen (18) were in condition for real service; some have been condemned as unseaworthy, and almost all required considerable repairs to bring them to their most efficient state.

The efficiency of this small force, moreover, was much lessened by the fact that most of them were steamers, without adequate sail power. The practical disadvantages of relying wholly or even largely on these for cruising vessels will be easily seen; their complicated machinery, worn by constant use, is exposed to derangement on foreign seas; they are more easily disabled in battle or storm; and, what is even more important, they afford no school of seamanship to officers or men. Lounging through the watches of a steamer, or acting as firemen and coal-heavers will not produce in a seaman that combination of boldness, strength, and skill which characterized the American sailor of the elder day; and the habitual exercise, by an officer, of a command, the execution of which is not under his own eye, is a poor substitute for the school of observation, promptness, and command, found only on the deck of a sailing vessel. Besides, few war steamers carry coal for more than ten days use, and as a large portion of even this time must be consumed in seeking a new supply; the disadvantages as well as the great expense of cruising under these circumstances are apparent, particularly on foreign stations, where our depots are necessarily few and the cost of fuel enormous.

MONITOR FLEET.

Our effective force was still further reduced by the fact that our monitors and iron-clads, laid up since the war, had received in the meantime little care. They were found, when the attention of the department was directed to them, in a state of rapid deterioration. Hulls, turrets, and machinery, the most costly and powerful, exposed without care to the action of the elements, were fast losing their value; and of the whole fleet of monitors, relied upon by the country for defense, not one could have been ready in time to resist a sudden attack.

A board for the "inspection of steam machinery," of which Rear-Admiral Goldsborough was president, was constituted by Mr. Borie, and from their report, hereto attached, it will be seen that many other of our vessels are entirely unsuited for naval purposes.

These statements, I may be permitted to say without imputing blame to any one, exhibit our navy at a low ebb; a condition, the cause of which may doubtless be found, in the vast expenditure of material during the great war; in the exhaustion which followed it; and in a sense of the burdens it had imposed, affecting alike the department, Congress, and the people.

WHAT HAS SINCE BEEN DONE.

With such material in this condition the department, at the commencement of the administration, found itself charged with the duty

of maintaining the naval power of the government in every part of the world; required to protect, on every sea, the interests of the dominant and responsible nation of the Western Continent, whose boundaries stretch to the shores of either ocean, whose people aspire to rival those of the whole world in every field of enterprise, and whose government is pledged to the interests of freedom, civilization, and progress; and at the same time to be prepared with reserved power and the means of applying it, available in every emergency for defense and aggression.

To restore our small force to an effective condition, and to make it available in the best manner in its large and growing field of operations, in the shortest possible time, with the material at hand, and without addition to the national expenses, was the first duty which presented itself; and to its accomplishment all the energies of the department have been bent.

In view of the importance of the work, pressing upon it with such urgency, and involving so many conditions of professional knowledge, the Secretary endeavored to avail himself of the best professional ability at his command in every bureau and department of the service. Thus assisted, the department undertook the task of reorganizing the material of the navy, as far as was consistent with existing laws and the state of the naval appropriations; and I think it will be seen that the results will fulfill all reasonable expectations, and fully justify the wisdom of its policy.

It will appear from the foregoing statements, that while there were no ships at the yards at home ready for sea, or which could be made effective without considerable expenditure of both money and time, a large proportion of those on foreign stations needed extensive repair and alteration.

To meet these difficulties, work was renewed vigorously at all the navy yards, and as fast as possible our ships in ordinary were put in condition for service.

Those in commission have undergone the same process as fast as they could be spared from their stations.

More than one-half of the whole Pacific fleet have been or are being repaired at Mare Island. Nearly all the vessels of the North Atlantic fleet have been sent home from time to time for the same purpose.

The *Guerriere* and the *Kansas* from the South Atlantic, and the *Ticonderoga* and *Canandaigua* from the European Squadron, are also now in hand. The work has also been renewed and actively pushed on all the available ships at the various yards. By this means we have been able already to reinforce our various squadrons to some extent. The *Severn*, the *Seminole*, the *Saugus*, the *Nantasket*, and the *Dictator*, have been added to the North Atlantic Squadron, which has also been strengthened by the *Powhatan* and the *Tuscarora*, sent from the Pacific fleet as the only available means for that purpose then at the command of the department.

The *Lancaster*, completely fitted out, has been sent to the South Atlantic, relieving the *Guerriere*, ordered home for repairs, and the *Juniata*, the *Sabine*, and the *Supply*, have sailed in like condition to reinforce the European Squadron.

To secure the greatest amount of efficiency, with greater economy at the same time, all the steamers susceptible of it, which have been repaired or fitted out, have been given full sail power and re-rigged, so that without interfering with their speed or effectiveness under steam, they are now entirely independent of it, and are able to cruise wherever required, or, if need be, to go round the world without deterioration of

boilers or machinery, and without consuming their coal, which is thus reserved for times of necessity or danger. The ship-rig considered the most efficient for cruisers has been already given to forty vessels of this class, which have been or are now being altered.

The success of those which have been completed, including among their number, as marked instances, the *Severn*, *Juniata*, *Mohican*, *Nantasket*, *Resaca*, *Lancaster*, and *Swatara*, has illustrated the wisdom of the plan. The capacity of these vessels for every service is proved by trial to have been greatly improved, without loss of speed or efficiency when under steam; and the department is convinced that, by this system, combined with a judicious and practical selection of simpler and more effective engines, boilers, and propellers, the efficiency of our force will be doubled, and at the same time much money saved. Many of our foreign coal stations have already been discontinued, and orders have been issued to the commandants of the squadrons, directing them not to permit the consumption of coal for any purpose which could be as well performed under sail, and requiring a report to the department of any deviation from the general rule, with the reasons for it in each instance.

The result has already been a large saving. Several of our most effective cruisers have consumed no coal since the receipt of the order. It can be shown by figures, that this system of giving and requiring the general use of full sail power, beside its effect to make sailors of both officers and men, will, on the vessels intended to be kept in commission, (calculating that they cruise but two-thirds of the time,) make, in the item of coal alone, as consumed under the old system, a saving of more than two millions of dollars per annum.

Our monitors and iron-clads were also placed in the hands of the mechanics and put in thorough repair. Four of the largest have gone into commission, as part of our available cruising force, and the rest are kept, at small expense, in complete order, so that the whole fleet can be ready for service in a week's time.

Of course so much work could not be done without considerable expenditure of money, but by close economy, and a system of strict accountability, the sum of this expenditure has, up to the present time, been kept considerably below the amount of the expenses of the department for the same period of the last year.

Since the 1st of March, 1869, no less than eighty (80) vessels of every class have been repaired or altered, or put in process of repair at the various navy yards, yet the books of the Treasury will show a decrease in the expenditures of the department for that time, as compared with the corresponding period of 1868, of three million five hundred and twenty-one thousand eight hundred and twenty-two dollars and ninety-two cents, (\$3,521,822 92.) The statement hereto annexed, entitled "Exhibit of expenditure," will show the ships repaired, and the monthly expenditure of the department.

THE PRESENT FORCE AND ITS EMPLOYMENT ON THE VARIOUS STATIONS.

THE NORTH ATLANTIC SQUADRON now consists of the *Powhatan*, *Tuscarora*, *Severn*, *Albany*, *Nantasket*, *Nipsic*, *Seminole*, *Swatara*, and the tugs *Speedwell* and *Standish*, together with the two heavy iron-clads, the *Sangus* and *Dictator*; twelve (12) vessels, including tugs, and mounting in all seventy-six (76) guns. It is commanded by Rear-Admiral Charles H. Poor, who relieved Rear-Admiral Hoff on the 15th day of September last.

For the reasons hereinbefore referred to, the department was not able,

at first, to show the force in the West Indian waters which the protection of our interests there seemed to demand. Some outrages on American citizens by the Spanish authorities of the island were reported, in consequence of which Rear-Admiral Hoff, then in command, was directed to proceed to Santiago de Cuba to investigate the matter and take measures for the better protection of American citizens and interests. He executed this duty with promptness and discretion; his reports have been made the basis of negotiation for redress; and since this timely show of power no further aggressions are reported.

The present commander of the North Atlantic squadron has been directed, while preserving strict neutrality between the contending powers in Cuba, to permit no injustice to citizens of the United States, to prevent interference with our commerce, and at once to repel and punish any disrespect or violation of our flag.

Owing to the prevalence of the yellow fever our vessels have been necessarily kept outside the principal port of Cuba, but they rendezvous at Key West, whence they can communicate by telegraph both with Havana and the Navy Department.

Some of the vessels of this squadron have also been cruising among the West India Islands, more particularly in the waters of Hayti and San Domingo. Part of this island has been, during the past season, in a state of revolution, and it was much regretted that the department could afford only partial protection to our interests in that quarter, by sending vessels from time to time as they could be spared from other and more important duty.

At Aspinwall a vessel has been constantly kept to look after the persons and property of our citizens at that point and on the isthmus.

THE SOUTH ATLANTIC SQUADRON now consists of the Lancaster, (flag-ship,) Quinnebaug, Wasp, and Portsmouth, four vessels mounting forty-three (43) guns, and under the command of Rear-Admiral Joseph Lanman. It is highly important that this fleet should be increased, as there is not at this time on that station sufficient force to guard our citizens and commerce on the coast of Brazil, and in the regions of the La Plata.

In consequence of the war existing between Brazil and Paraguay, the navy has been frequently called upon to afford protection to American citizens and interests in that latitude, and the department desires to send there, as soon as practicable, vessels of light draught, which will be able to ascend the rivers of the Argentine Confederation and Paraguay.

THE PACIFIC FLEET, under command of Rear-Admiral Turner, with Commodore Wm. Rodgers Taylor, and Commodore D. McDougal, commanding the respective squadrons, consists now of fourteen (14) vessels, the Kearsarge, Lackawanna, Ossipee, Mohican, Resaca, Cyane, Jamestown, Saginaw, Dacotah, Saranac, Nyack, Onward, and the Guerriere, (refitting,) with the Pensacola as flag-ship, mounting in all one hundred and twenty-nine (129) guns. Of these, the ten (10) last named have been or are being thoroughly repaired and altered in the manner hereinbefore mentioned, and the fleet, though smaller in number, is already much more effective for the duties of that station.

A ship of war has been stationed on the coast of Alaska since that country was ceded to us; and the sloop of war Cyane, with a properly equipped steam launch, has also been sent there as additional force during the coming winter.

An astronomical party was conveyed to Behring Strait, in the Mo-

hican, and an interesting account of their observations will be found in the report of the Superintendent of the Naval Observatory.

The rear-admiral commanding the station has visited the Sandwich Islands during the last summer, for the purpose of communication with our minister, and looking after American interests in that locality. He has been also charged with the superintendence and completion of the surveys of the Midway Islands, for which, and for the purpose of removing obstructions, Congress made an appropriation at its last session. The department has entered into a contract for the execution of this work with Mr. George W. Townsend, of Boston.

The naval operations on the Pacific for the last year will be found, together with those on the other stations, detailed at length in the statement entitled "Operations of fleets," attached to this report, and, without repeating it here, I will only say that, though the arduous duties of the stations have been well performed, covering the extent from Alaska to Cape Horn, and including the islands of the Pacific, it still is evident that our force in the Pacific is inadequate for the duties required of it.

Our trade on that ocean is constantly and rapidly increasing, and our citizens are found located everywhere on its shores and among its islands. All the groups are visited by our whalers, and many Christian missionaries, who are entitled to the protection of our government, are scattered among them. The regions of the South Pacific have not been visited by an American vessel of war since the exploring expedition under Captain Wilkes; and the great Polynesian Archipelago, holding out many inducements to our commerce, has been but partially explored and surveyed. Applications come constantly from our ministers and representatives on the Pacific, urging the necessity of sending vessels to various ports, but we are rarely able to respond to their appeals.

The sloop of war Kearsarge was sent to make a limited reconnoissance of the Pacific Islands, with orders to extend her cruise as far as Australia, where she was last heard from. The satisfaction caused by the appearance of this vessel at the points where she touched, gives a true and high idea of the value of such cruises.

The Jamestown was subsequently sent with orders to visit the Feejee Islands and the Caroline Group, for the purpose of investigating reported outrages on American citizens, and looking after the interests of the United States in that quarter.

The department trusts that it may soon be able, with the approbation and assistance of Congress, to meet more fully the requirements of this station.

THE EUROPEAN SQUADRON, under command of Rear-Admiral Radford, has been reinforced by the Juniata and Supply, and the Sabine has been attached to it for the present; it consists now of these vessels, with the Richmond and Plymouth, and the Franklin as flag-ship—six (6) vessels, mounting one hundred and six (106) guns. This is, of course, but a small force for a station so conspicuous and important, but we have not been able further to increase it. As soon as the resources of the department will permit, this squadron should be largely strengthened.

THE ASIATIC SQUADRON consists of the Piscataqua, (flag-ship,) Oneida, Monocacy, Iroquois, Ashuelot, Unadilla, and Maumee; and the Benicia, Colorado, and Alaska are also fitting out for that station; making in all ten (10) ships, mounting seventy-two (72) guns. It is commanded by Rear-Admiral Stephen C. Rowan. I regret to say that three (3) of these ships have been condemned as entirely unseaworthy, unfit for cruising except in rivers, and unsafe to be sent to the United States; and, as there is no opportunity of repairing them in those waters,

the admiral in command has recommended that they be sold on the station. The department has therefore directed that, when it shall be no longer possible to use them with safety, their armament and stores be removed and sent home, and the vessels themselves sold to the best advantage. This order has already been carried out in the case of the *Aroostook*, which was also condemned.

The completion of the Pacific railroad must largely increase our intercourse with the East, and as the presence of a strong naval force constitutes our most powerful appeal to Asiatic respect, it is deemed advisable to keep on this station as large a squadron as possible, not only for the protection of our citizens, but to increase the prestige of our representatives in that quarter.

During the civil war in Japan the presence of our war vessels was felt to produce a very beneficial effect; carefully observing a neutral policy themselves, they gave security to our citizens and prevented much threatened injury to American interests. Rear-Admiral Rowan has been directed to afford every facility at his command to our citizens who are endeavoring to obtain from the Chinese government permission to lay an electric telegraph. Should they obtain the desired permission, an officer will be detailed to represent the United States in the undertaking.

Elsewhere on this station every attention, within the limited means at command, has been given to American interests. The squadron has been constantly employed to its fullest capacity. Every effort is being made to reinforce it with efficient vessels as fast as they can be fitted out, but we shall not be able with our present means to give it the strength which the station requires.

INCREASE OF OUR FORCE ON FOREIGN STATIONS.

Such is the condition and employment of our navy at the present time, differing from what it was at the commencement of this administration, only in the advance of the ships and material on hand from a state of deterioration to a condition of efficiency and improvement.

This, while it was all that the department could do under the present authority and appropriations, is by no means all that I conceive to be necessary for the safety of the great interests involved, or even for national defense in time of danger. The service needs, and the position of our country requires, a great increase in the effective force of the navy; not so much in the number of the ships that constitute it as in the number and character of those employed. I recognize the necessity for close economy in expenditure under the present circumstances of the country, but the naval expenses make but a small part of the national appropriations, and the true wealth of the country will not be increased by neglecting the means of national safety and honor, nor money saved by refusing adequate protection to commercial enterprise.

In a country peopled like ours, and separated by the sea from powerful neighbors, we need, in times of domestic peace, only the organization and nucleus of a land force; but with the prosperity which follows domestic peace comes the demand for protection to the commerce which it fosters and the wealth it accumulates.

Our prosperity, either as a producing or as a manufacturing people, is measured by our commerce with countries beyond the sea; and wise statesmanship and true economy alike require adequate protection for this means of national wealth, both on the ocean where it is employed

and in the ports where it is organized and whence it issues, and in which its immediate results are accumulated.

We have already opened steam communication between Europe and the East across our continent and through our ports on either ocean. In this age time is an essential element of wealth, and we may reasonably expect that the route which connects the trade of the East with the markets of Europe in forty days will, if fairly fostered and protected, practically supersede that which consumes twice that period. The nation controlling the trade of the East has always been the leading one in the commerce of the world; looking to this as the source of national wealth and maintaining a powerful navy for its protection. As our trade in this direction increases, we should gradually prepare to protect it on the waters of both oceans; and our responsibility will be largely increased, if we shall be able to open, under the auspices and protection of our government, (and we cannot commit it to any other,) ship communication across the great Isthmus.

To afford reasonable protection to our commerce we must have some ships able to cope with those of other maritime nations. Our navy, during the war, assumed large proportions in respect of numbers and expense, and it was effective, for the occasion, against an enemy having little naval power; but it was made up largely of vessels purchased or built to meet the emergency. A large proportion of it was not adapted to cruising purposes, and, with the exception of the monitors, which were not built as sea-going vessels, it would have been almost powerless against such fleets of sea-going iron-clads as either England or France could bring into action, on the ocean, or on our own shores.

It is the habit of every foreign nation, making any pretension to maritime power, to keep on every station one or more powerful sea-going broadside iron-clads, against the force of which our wooden vessels on the same station would be powerless. In the event of a war our ships would be uselessly sacrificed, or obliged to find safety in neutral ports, or, abandoning the sea, and leaving our commerce to its fate, to seek on our own shores the protection of our monitors and forts.

It is not doubted that any war with a foreign enemy must be a maritime one. The American people are accustomed to success on the ocean; and they would have little cause, and less inclination, to forgive a policy which, at the first sign of a foreign war, sent our navy hurrying ignominiously to our shores.

Yet we have not, at this time, on any foreign station, a squadron whose combined force would avail for a day against the powerful sea-going iron-clads which both France and England have on the same stations.

These are not agreeable facts to contemplate, or to state, but, after giving the subject much investigation and reflection, I have felt it to be my duty to state the truth frankly, through you, to the representatives of the people, that they may determine how much and how prompt action the situation requires.

It is true our best monitors would, if brought into action, be powerful against anything that floats, but these are steam batteries, not sea-going cruisers. Some of them have illustrated, by successful experiment, their capacity for a sea voyage under favorable circumstances; and the department has, for want of any more available force, lately put some of them in commission for duty on the home or North Atlantic station, but they could not be used with advantage as cruisers on foreign stations. They require several vessels to accompany them, and, being entirely without sail-power, must be towed as soon as their coal is ex-

hausted. They would be always dangerous to health in tropical seas; and with broken or disordered machinery they would be helpless in mid-ocean.

They are valuable for auxiliary defense of our own shores, but should not be relied upon beyond them.

A cruising vessel, suitable for our requirements, should be able to depend on her own resources without looking for aid other than that she carries within herself. She should have ample steam-power to carry her rapidly in chase or in action, and should possess at the same time the qualities of a first-rate sailing vessel, able to keep the sea at will without consuming her coal. She should carry a broadside battery of heavy guns, and be herself impervious to the heaviest ordnance afloat.

England and France, rivaling each other in ingenuity, energy and liberality in this direction, have both succeeded in constructing some beautiful specimens of iron-clad sailing vessels, with auxiliary steam power, effective for every warlike purpose, and able to keep the sea under all circumstances. They have high speed, and one of them would be a terrible foe for a squadron of wooden vessels. In the meantime we have built no ships of that kind, but we have watched with interest all the naval experiments of Europe, and, familiar with their details and results, we know their strength and their weakness.

Under these conditions, we can be sure that every step we take is a wise experiment of a real improvement. The time has come, I think, when we should begin to use the knowledge we have been seeking; and I therefore earnestly urge the propriety of commencing at once the building of sea-going iron-clads, suitable to cruise on foreign stations, and able to protect our commerce and vindicate our principles in any emergency. We should aim to have one or more of these ships on each foreign station, and to be prepared with the necessary reliefs. This will ultimately require no less than ten in all; and, without attempting to build them all at once, we should (admonished of the urgency of the case, and of the time necessarily consumed in their construction) commence immediately on no less than four—one for the Asiatic, one for the Pacific, and two for the European squadron—following these, as rapidly as circumstances will admit, with those necessary for the other squadrons and their reliefs. I recommend that plans for the boilers and engines of these vessels be submitted by persons outside of the navy, the best of which may be adopted.

These, with some additions to our wooden vessels, and the refitting on the plan adopted, and the proper employment of such effective ships as we now have, and with our monitors and torpedoes for harbor defense, will give us the nucleus of a navy, not indeed proportioned to our commerce or approaching the force of other maritime powers, but sufficient to command respect abroad, and to afford time, in case of sudden war, to organize and apply the resources of our country and the energies of our people.

For your further information and that of the representatives of the people on this subject, I herewith transmit, in the paper entitled "Mercantile and naval tonnage," a detailed statement of our mercantile and naval tonnage, and the relation which it bears to that of some other maritime powers.

On the 30th of June, 1868, while our ships of war in commission numbered fifty-seven, (57,) mounting five hundred and ninety-two (592) guns, with a tonnage of fifty-five thousand four hundred and fifty-five, (55,455,) or only about one-eightieth ($\frac{1}{80}$) of our whole mercantile tonnage, those of France in commission numbered one hundred and fifty, (150,) and had

a tonnage of two hundred and fifty thousand (250,000) tons, or one-eighth ($\frac{1}{8}$) of their mercantile marine, and those of England in commission numbered one hundred and ninety-one (191) vessels, mounting twenty-five hundred and sixty-six (2,566) guns, and had a tonnage of three hundred and twenty-eight thousand six hundred and fourteen, (328,614,) or one-seventeenth ($\frac{1}{17}$) of their mercantile marine.

This comparative statement represents our commerce in its present depressed state.

Both France and England, since the date at which the comparison is made, have added largely to the number and power of their respective naval establishments, but we have not increased, nor until very lately even preserved ours.

HOME DEFENSE.

But the subject of protection to our commerce and influence on foreign seas, by no means comprehends all that the department feels called upon to represent in connection with the question of the size and character of our navy.

The matter of national defense is still more important, and comes home as closely to the interest and the pride of the whole people. Any comprehensive plan of a naval establishment must include some practical provision for the defense of the numerous seaports scattered along our coast, and the great rivers and bays, on whose shores are concentrated so much of the national and individual wealth.

Our monitors have been already alluded to as a ready and effective means of harbor defense, and this they will doubtless be, to the extent of their number and capacity. But, unless completely and certainly invulnerable, they are comparatively useless, and we must therefore keep pace with the late improvements in ordnance. Most of them are capable of bearing the additional armor necessary to give the strength required, but this will of course require a new and considerable outlay of money.

TORPEDO CORPS.

Another comparatively inexpensive but most effective means of defense has not escaped the attention of the department. I refer to the *sub-marine torpedo*. The terrible destructive power of this instrument was shown during our late war. Since that time considerable attention has been given to this subject by officers of the navy, particularly by those stationed at the Naval Academy.

Shortly after my appointment as head of the department, a torpedo corps was established under the Bureau of Ordnance to make experiments, take charge of the apparatus, and perfect a system for the application of this means of defense to our coasts and harbors.

This is, of course, not a subject for public illustration, but enough experiments have already been made to show how valuable, as well as terrible, is this means of defense; and to convince all having knowledge of it that when it shall have been further perfected, and its use systematized, the torpedo will be one of the most effective weapons of marine warfare. To insure safety and success in their use under every condition requires a knowledge of the scientific principles applicable to their construction and use, with an intimate acquaintance with the localities to be defended. The torpedo corps has therefore been selected with care, and the experiments are conducted under the supervision of an officer

of scientific ability. As soon as a torpedo is constructed and the particular locality and manner of its use determined, it can be stowed away as an inexpensive but most effective weapon of war.

This means of defense, properly applied in conjunction with a system of harbor obstructions, backed by monitors, and supported by the forts and water batteries which command the narrow entrances to our principal harbors, would defy any power which could cross the ocean to attack them.

These localities have been the subject of careful inspection by both branches of the military service, and both are thus prepared with the knowledge which only actual inspection can give.

I commend this subject through you to the attention of Congress, and I trust they will afford the means to pursue and perfect the system.

In the paper herewith transmitted, entitled "Plan of naval establishment in time of peace," will be found a detailed statement of what is believed to be the most economical and efficient organization of the force necessary.

This force, there estimated as low as one-fiftieth ($\frac{1}{50}$) of our mercantile marine, or at about one gunboat of six hundred tons to sixty thousand tons of commerce, is less in the number of ships than that which we now have.

To carry out the suggestions I have made, both for foreign and home defense, will not of necessity entail a very heavy immediate expense. It will be seen by the report of the board on steam machinery, before referred to, that we have now on hand a large number of costly vessels and a vast amount of expensive machinery, not adapted to the naval service and comparatively useless in its reorganization. By the sale of these articles as rapidly as it can be done to advantage, a large proportion of the cost of the proposed improvements can be ultimately repaid to the treasury.

Besides, by making our force more effective in character and organization, we shall be able to keep a less number of vessels in commission in proportion to our coast line and commerce, and expense will be decreased by the decrease of the number of ships, men, and officers employed.

These means, with the proposed annual saving in the use of coal, should quickly reimburse for present outlay.

OCEAN STEAMERS.

There is another element of defense against the time of danger, perhaps as effective as any other, available to wise and liberal statesmanship. Nations, like men, hesitate to attack those who are prepared to do them serious injury, and in the means of destructive aggression is often found the surest defense against all who have anything to lose. Such means would be at hand, if we had lines of ocean-going steamers established, running out of our ports in the peaceful pursuit of commercial enterprise, but carrying our own flag, and available to our government in time of need.

The attention of thoughtful men has been much directed to this subject, and all are looking to the national government for encouragement. To provide and protect the great means of commercial intercourse, both domestic and international, is one of the direct purposes of government, for which it is established, and to which its resources may properly be directed. Enterprises of such magnitude are undertaken at great expense and risk of capital. Important elements of the public wealth and

prosperity, they are, in their nature, subject to the vicissitudes of public policy. They thus assume a national character, and are, I think, the proper subjects for government aid and direction.

It will not become me to discuss in this report the many arguments of national prosperity and pride which press the subject upon us, but I may be permitted to urge it as an important element of national safety. In support of this view, I call attention to the fact that there are now running from the ports of New York, Boston, and Baltimore for those of Europe, over sixty (60) powerful screw steamers, averaging nearly three thousand (3,000) tons each. These steamers, carrying the English and French and German flags, are, most of them, the results of wise liberality on the part of their respective governments; and they now absorb a very large proportion of the carrying trade across the Atlantic. Their average time in crossing, to and fro, in all weathers, is not more than eleven days. Any one of them could be quickly converted into an efficient and powerful ship of war, capable of carrying full-sail power and keeping the sea for any length of time. Here, then, is a heavy tonnage of possible war vessels, larger than that of our whole navy on the 1st of January, 1868.

Had our mercantile marine possessed such lines at the breaking out of the late war, we might, instead of permitting the rebels to introduce a vast amount of war material before we could collect the means to prevent it, have quickly closed every southern port.

A comparatively small force of this kind, appropriately armed and let loose on the ocean, under the command of bold and intelligent officers, would be a dangerous foe to the commerce of any country. Our own was substantially driven from the seas by two or three roughly equipped vessels, much inferior in power to those of which I have spoken. Thus it will be seen that, in giving up this field to the occupation of other nations, and yielding to them the commercial advantages which naturally belong to our own position and resources, we at the same time relinquish our own weapons and arm our possible enemies.

We are looking with confidence for a large increase in the commerce of the East, which will require a corresponding increase in the present means of rapid transportation on both oceans; and, in the interest, simply of the naval establishment and of so much of the national defense as depends upon it, I earnestly urge that measures be taken, at this juncture, to induce our own merchants and ship-builders to enter into this field of enterprise.

Inducements should be held out to those who are willing to undertake it, to build steamers on plans approved by the Navy Department, subject, in case of necessity, to be taken by the government at an appraised value.

Those on the route between California and Japan should be able at all times to protect themselves against pirates and privateers, and all should be of a class available in war.

I do not, of course, suggest any particular plan on this subject, and I speak of it only to show how much the naval establishment, in common with every other national interest, will be affected by its proper solution.

NAVY YARDS.

Among the most important elements of a naval establishment are the yards where its material is collected, and its ships built, repaired and equipped. When these are not of a character to enable this work to be

done well and rapidly, the establishment is weak in an important point. The great maritime powers of Europe have immense establishments, built and maintained at great expense, and furnished with every means for the rapid construction and fitting out of their fleets.

The first official act of my immediate predecessor was the appointment of a board to examine and report the condition of our yards; and I have myself visited and inspected most of those on the Atlantic coast. They are generally of small capacity, and ill adapted to meet the requirements of modern naval construction. Some were established at a comparatively early date, apparently without providing for the future, and are not, in their present position, susceptible of much improvement; and others, though of larger capacity, are at present poorly supplied with the means of rapid work.

We have seven regularly established navy yards. Not more than four of these are capable of fitting out more than two or three vessels at one time. In all, we feel the want of more docks. In our seven navy yards we have but three dry docks. This want would be severely felt in time of war, as the floating docks used by the mercantile marine are not suitable for taking a heavy armored ship out of the water; and nothing is really safe for a vessel of war but a regular dry dock, into which she can enter with armament and stores on board, without straining or danger. While I mention these things as a proper subject-matter of report, I do not, at this time, propose any large expenditure for the improvement, in these particulars, of the yards in actual operation on the Atlantic coast. They are generally available for the present, and the most pressing need is elsewhere.

The report of the board appointed to examine the condition of the navy yards is herewith transmitted. It will be found to be very instructive, and to the information and suggestions therein contained careful consideration should be given. Never before has so much and such accurate information on this subject been in the possession of the department.

There are a few points, however, to which I desire to direct particular attention.

Pensacola.—The first is the necessity of some action for increasing our facilities in the Gulf of Mexico. The yard at Pensacola was so far destroyed during the war as to be now almost wholly useless, and we are without a depot on the Gulf where vessels can be refitted. The station, which includes the West Indies and the Gulf, is one of great and growing importance. In the present condition of things, a vessel on that station needing any repair is obliged to be sent to the navy yards of the North.

Mare Island.—The navy yard at Mare Island is our only yard on the Pacific coast, and on it we should be able to depend for the maintenance of our whole fleet on that ocean and in the East. This yard is very favorably situated, of large capacity, and capable of being made the great naval station of the western coast. Much loss of time and money is incurred in sending ships around Cape Horn, and prompt measures should be taken to establish at Mare Island a working yard and depot of naval supplies sufficient for the building, furnishing, and refitting of our ships in the Pacific.

League Island.—The third point, pressing on this subject, is the necessity of commencing at once to prepare our great fresh-water naval depot at that part of the Philadelphia station known as League Island. This is not only desirable in view of the present condition of the yard at

Philadelphia, but is rendered necessary by the present character and future necessities of the navy.

Ships are, of course, better constructed and equipped at large establishments, possessing complete accommodations and facilities for the economical arrangement and application of material.

The great defect in the situation of most of our yards is their want of land area and available water front sufficient to do even their present work to advantage.

This is particularly the case with that portion of the naval station at Philadelphia where the work is now done. The water front of the present working ground is so small that four ships can hardly lie there without being in the way of each other. Buildings and machinery of every description are cramped and crowded together, interfering with their proper use, causing great expense of both time and money, and, from the close proximity of workshops and inflammable material, exposing the whole to great risk. In case of fire nothing but the most favorable circumstances would prevent a general destruction of everything in the yard; and great vigilance is required and constant expense incurred to guard against a general conflagration of houses, ships, and material.

Moreover, this portion of the station is situated in the midst of a great city, stopping its growth in one direction and interfering with its improvement, and itself subjected to all the inconveniences incident to its position as an independent establishment in the midst of a municipality with adverse interests and under different government.

Like difficulties have been felt at the Brooklyn yard, but those at Philadelphia are much greater. These inconveniences in the working of a station of such absolute importance as that of Philadelphia are most serious. They are great at all times and they will be more severely felt as iron comes, as must now be the case, to be more generally used as a material for naval construction. In view of the necessity of fresh water for their preservation, the Philadelphia station is, for the repair and ordinary of iron ships of every class, far the best, if not the only practical one on the Atlantic coast. Situated on a great fresh water river, one hundred and twenty miles, by its course, from the sea, in the heart of a populous country, at the great centre of iron and coal, and with water sufficient for the draught of the largest ships, it presents at once every condition of convenience, economy, and defense.

The only difficulty for the present and for the future is found in the size and situation of that part of the station which we are now, for want of legislative action, obliged to use as the working yard.

I should not feel authorized to speak so strongly on this subject were it not that we now actually own, as a part of the same general station, this island, of an area of six hundred (600) acres, between the lines of mean low tide, cut off by navigable water from the main land, with a water front on the Delaware alone of two and a half (2½) statute miles, with a depth of water of thirty (30) feet, and with great natural facilities for basins and docks, enjoying all the advantages before enumerated, and subject to none of the inconveniences experienced at that portion of the station now in active use.

This position was approved by the department after close investigation by officers of every class; and the land itself, the gift of the city of Philadelphia, and purchased by her at great expense as a measure of relief to herself and to the government, was given and accepted with the idea of transferring to that point all the naval operations of the station. This, the department has been and is anxious to accomplish;

but it needs an appropriation for the preparation of the new yard, and without this it cannot move.

In the mean time it would be foolish for the department, even if it felt authorized, to expend money on the permanent improvement of the present working yard at Philadelphia; and nothing can be done either in the rearrangement of buildings or the providing of the improved tools and machinery proper for the work required.

The annual expenses of this yard are, for these reasons and those before given, much increased; and it is not doubted that the savings from this source, and from the expense now incurred of maintaining two establishments, with the money which can be realized from the judicious sale of the land now occupied in the heart of the city, will go very far towards repaying the expense of establishing the yard at League Island.

I trust, therefore, that authority, if it be necessary, will be given to the department to transfer the working yard of the Philadelphia station to League Island, as rapidly as is consistent with the interests of the service, and to dispose of the present yard as portions of it shall be vacated; and that an adequate appropriation will be made for the work necessary to be done before any part of the present yard can be sold.

The survey of the island, and a plan for its improvement, is herewith transmitted.

New London.—Eighty three (83) acres of land on the Thames River, near New London, were some time since given by the State of Connecticut, and accepted by the government with a view to the establishment of a naval station at that place.

In conformity with this understanding, the department has placed a proper naval officer in command there, but it is able to do nothing towards actually establishing the new station without an appropriation for that purpose.

The land referred to is well situated on the bank of the Thames River. It is favorable, in its general character, for the object designed, and it has a water front of fifty-two hundred and eighty (5,280) feet, running back from the river six hundred (600) feet, and a depth of water in the channel of over thirty (30) feet.

It is situated in the midst of an industrious community, whose labor is skillful and cheap, and on a fine harbor easily accessible in all weathers and from almost every point.

This land was, as I have said, given and received for the purposes of a new naval establishment, and in this spirit the department presents it for the consideration of Congress, and such appropriation as present circumstances may warrant.

Other yards.—There are two other points which require consideration and action as soon as the condition of affairs will admit.

The first is the propriety of increasing the size of the yard at Gosport, in Virginia. This yard is in a most favorable location, with a beautiful harbor easily defended. The ground adjacent to it, running up the river, could be purchased on better terms now than is likely to be the case again, and would be very valuable, giving the government the land on both sides of the channel.

The other is the very great convenience and economy which would ultimately result from the establishment of a navy yard, for repair and refitting at least, somewhere on our southern Atlantic coast. All our ships cruising in the West Indian and South American waters are obliged to resort, at great disadvantage, to our northern yards for all needed refitting or repair. Though this subject does not at this time press with as strong a necessity as many others, yet it is of great importance, and

may become much more so in view of a possible ship canal through the Isthmus, and the consequent great increase in the trade and importance of the West India Islands.

Many improvements, and some ultimate changes, are required in other yards, the particulars of which will be found in the report of the chief of the Bureau of Yards and Docks, herewith transmitted. In connection with the navy yards, I desire to call attention to a matter which, though not of great national importance, affects seriously a large class of deserving persons. The act of July 14, 1862, prohibits in effect the payment of any wages to workingmen except "for the time during which they are actually engaged." This provision, which does not interfere with salaried employes, seriously affects workingmen who are ready to work, but are deprived of the opportunity, on each of the many recurring days of national mourning or ceremony.

This, though apparently a small matter, is of real importance to those who are dependent upon the wages they receive each day for the daily support of their families, and who, by reason of their engagement with the government, are deprived of other employment. I trust the law will be so modified as to permit the department to make the workmen some allowance on days of unaccustomed and compulsory leisure.

TIMBER LANDS.

I also call attention to the lands reserved by the government for the supply of timber to the navy. From this source we drew our supplies of live oak in former times. No adequate protection has been given to it of late years. Much of it was destroyed during the war; and of that which escaped, large quantities have been indiscriminately cut by trespassers, and sold to the government. This timber is of the greatest value, and its loss cannot be again supplied. Once destroyed, we have no other timber to take its place. The old "Constitution," built of this material more than seventy years ago, is still in commission, with half her more important original timbers in her, while fleets of white-oak vessels have long since gone to decay. It must not be supposed, that with the use of iron in ship-building, the necessity for indestructible timber will no longer exist. The fact is that it must still be used to a great extent in the construction of cruising vessels, even though built of iron. From it are made the immense frames which are built to support the iron, and give buoyancy to the ship.

The supplies of seasoned timber laid up in our yards have been almost entirely consumed, and we should take every means to preserve and secure that which remains on the government lands.

The department has lately detailed an officer to look after these lands, but nothing but stringent laws, strictly enforced, will secure the remainder of the old timber, and protect the new growth.

NAVAL ACADEMY.

The standing of the Naval Academy continues to be maintained. The system of mental and physical training there pursued is of the highest order, covering every branch of practical and professional knowledge, and fitting the student for all the varied duties of his profession. The graduates bring to the service minds disciplined and enriched by regular and well directed study, and bodies strengthened by manly exercise. In mental and physical accomplishment, in tone and

spirit, in character and capacity, they do honor, as a class, to the institution and to the country.

No change has been made in the system of education since the last report. The number of graduates at the close of the last year was seventy-five; the number of those admitted during the present year was eighty-six; the total number of midshipmen now at the Academy is two hundred and forty-eight. The Vice-Admiral, for the last four years in charge of the Academy, and who has inspired it with the energy of his own character, has been this day relieved by Commodore John L. Worden, who takes charge as superintendent.

The report of the superintendent for the last year is herewith transmitted.

SEAMEN AND PETTY OFFICERS.

But it is not worth while to maintain expensive navy yards, build fine ships, and carefully educate our officers of higher grades, unless we pay closer attention to the character and training of our petty officers and seamen.

The naval service everywhere presents conditions of life, duty, and discipline differing from those of every other pursuit.

The nature of naval operations, and the circumstances under which they are performed, require and produce these conditions among every people and under every form of government. They combine to establish a distinct class, with strong features of resemblance all over the world, and everywhere differing from the body of the country they represent. The best characteristics of this class, both officers and men, are clearly the results of the discipline, training, and traditions of the service in which they have been reared; and wherever these traits are most distinctly recognized, there the service is ever most efficient.

We, in common with all other maritime nations, have established schools of instruction and preparation for officers, and have produced as a result a corps which will compare most favorably with any in the world.

But we have neglected and are neglecting the means necessary to bring forward, educate, and attach to our service a competent and efficient body of American seamen.

I deem it absolutely necessary for the maintenance of the high character of our naval service that some well-defined system, calculated to create and secure a class of petty officers and skilled seamen, upon which the navy can rely to man its fleets in time of war, should be at once adopted, and carefully and rigidly applied to the service.

England and France have long since recognized this necessity, and each, though in different form, best suited to the character of their government, has successfully provided suitable plans to accomplish the desired result. We can profitably study and learn much from the practical working of both the French and English systems.

England, with a navy many times larger than ours, by means of her training ships, continuous service, good conduct badges, long service medals, gratuitous outfits, longevity pay, and liberal pensions, has now a full and unfailing supply of excellent seamen during peace, and an adequate reserve to draw from in time of war.

France, with a naval force in time of war quite equal to that of Great Britain, has her maritime conscription, suited alone to that country, but which fully supplies her navy with good men.

Beyond the "honorable discharge" which seems to have been bestowed

indiscriminately hitherto, and a half-way pension, our navy holds out no inducement for sailors to ship, especially while the merchant service tempts them with increased pay, more liberty, and the chance of promotion to the positions of petty officers.

It is necessary to devise some further means by which to make our naval service popular with seamen, and to enable us to expand adequately in case of war.

Of late years, great attention has been paid abroad to the training of boys for seamen and petty officers. The system adopted has been long enough in operation to enable its full benefits to be understood. Both England and France are now reaping its advantages, in the possession of a fine body of petty officers and leading seamen, who, reared in the navy from their youth, are familiar with its discipline and its traditions, who belong to the service as much as do the officers, and who look to it as their occupation for life.

On several occasions we have attempted to introduce the apprentice system into our navy, but it has never made any great headway. Never properly fostered and encouraged, it was diverted from its intended object, and latterly substantially broken up by the law limiting the number of seamen in the navy to 8,000.

The importance attached abroad to the training of boys for the naval service is manifest by the number of vessels employed for that object. England has thirty-one national vessels devoted to the purpose of nautical education, aiming mainly at obtaining good petty officers and seamen. It is only the most intelligent and enterprising of the naval apprentices who work their way to the positions of boatswains and gunners, the extent of their ambition.

I would not blindly follow the example of any nation, but some attention should be given to the subject of bringing the personnel of our navy up to a higher standard.

In the French navy the crews are native born, and in that of England they are made up of English and Americans, while the cosmopolitan character of the crews of some of our ships shows the native element poorly represented.

It is important that a navy so small in number as ours should contain superior material of all kinds.

Those "waifs of the ocean" who are now in any navy, and now in any merchant service, have little or no love of country, or feeling of attachment for the flag. They are only held in the service by the slender tie of temporary convenience, necessity, and subsistence, often sundered by desertion or discharge, never to be renewed. This class now so exceeds and preponderates over that known as our "old man-o'-war's-men" as to give a very undesirable character to the service.

For the improvement of the personnel of the navy, I would suggest that some plan be devised to attach permanently to the service the best men now in it, fast falling away through carelessness and neglect, and to raise up and educate a new class of men for warrant and petty officers; aiming to secure by this means a sufficient number of native-born seamen to supply current wants, and to have a large reserve always ready for emergency.

In our coast squadron, suggested in the plan of naval establishment hereto annexed, we should endeavor to combine a training school and a fleet for home defense—familiarizing our officers with our coasts and harbors, and providing a disciplined corps of petty officers and seamen to man our iron-clads for coast defense at the shortest notice. This

squadron would also form a reserve from which our ships could be manned as they were fitted out for service abroad.

It is also highly important that some plan should be devised by which all seamen belonging to the United States may be "registered" in such a manner that they could, in time of war, be at once designated and called upon. Notwithstanding all the laws enacted for their benefit and the "protection" they receive, the United States government has no control over our seamen in time of war. A civilian may be enrolled in the militia, and is subject to call, but no authority exists by which a sailor could be called to go on board ship to protect our harbors, were an enemy thundering at our gates.

During the rebellion our navy required some sixty thousand men, and the government only succeeded in getting vessels to sea at great cost. Bounties were paid at the rate of three or four hundred dollars per man, advances made on pay, and local and State bounties added. The whole amounted, in some cases, to over one thousand dollars for a single seaman. The precedent thus established will be referred to hereafter. It therefore becomes necessary that some means should be devised to bring the seamen in this country to its protection in time of war. The people would not object to the payment of suitable bounties, and making proper provision for the family of the sailor, provided the government could certainly secure his services when required.

To this end every seaman on the seaboard and on the lakes should be registered, and means taken to secure their service to the country, on some settled terms, in time of war.

I take occasion, in this connection, to draw attention to our mercantile marine, and to urge some action by Congress to protect our seamen from "runners" and "land-sharks"—terms not inapplicable to a class of men engaged in furnishing seamen to merchant vessels. No class of men are more cruelly treated. The evil is on the increase, and a suitable remedy can only be furnished by national legislation.

The system adopted by law in England has the effect of securing for their mercantile marine the best British and American seamen, and leaving the worst to seek service elsewhere. The English law to which I refer has been in operation upwards of twelve years. One effect of it has been to abolish "boarding and shipping masters," who shipped drunken and worthless men. No seaman can now be shipped in the British mercantile marine unless he can show an honorable discharge from his last ship. This rule is strictly enforced. Under the operation of this law, our native-born seamen are largely leaving our merchant ships and seeking service abroad, where they get better pay and have better association. This is a matter of great importance to us, as it directly affects our commercial interests, as well as the material from which we are to draw our naval force.

By adopting as far as practicable a system of registry and enrollment for active and reserve seamen, induced, if need be, by liberal, periodical advance of clothing and money, and a judicious system of "furloughs" and "pensions," "long-service honors" and rations, and bounties when necessary, we may do much towards the speedy restoration of the personnel of our navy; and by adding to this a regular system of training for petty officers and first-class seamen, its ancient prestige and glory may be maintained and increased.

NUMBER OF MEN.

Great inconvenience has been experienced from the restriction of the number of men of all classes in the service to eight thousand. This

number was required to man the ships in commission; and, hampered by the law, the department could not provide men to be ready for relief when needed. Crews had to be discharged before those who were to take their place could be enlisted; and ships ordered home from their stations before the manning and organization of those which were to relieve them.

The loss of efficiency through this is readily seen, and the inconvenience will be more severely felt if the number of our ships in commission is increased.

The estimates for the next year are made on the basis of twelve thousand (12,000) men, as the smallest number for the proper performance of the work required. I trust that this increase will be authorized.

INTER-OCEANIC CANAL.

The great importance of the construction of a ship canal across the Isthmus of Darien has been constantly before the attention of the department. Now that the Suez canal has been opened for navigation, we are doubly stimulated to such efforts as will lead to the success of our own great enterprise. It is scarcely necessary to offer argument upon the value of such a work in its effect upon commerce, and, through commerce, upon civilization throughout the world. The public mind fully accepts and appreciates its value. But we have reached the utmost limit of utility in the mere study and discussion of the subject. The time has come for action in the field; and we are well informed as to the direction which this should take.

The successful surveys hitherto made on that part of the great isthmus lying between Tehuantepec on the north, and the province of Choco on the south, have furnished us with valuable information. Several of these have been accompanied by projects for an inter-oceanic canal, which have been for a long time before the world. The best evidence of their inability to command public confidence, is that not one of them has been carried into execution, although several excited hope, and were received with favor. It is clear, therefore, that until we know the whole ground, we shall never be able to determine the best route. When that route is known, the most thorough examination of the ground will alone serve to settle the question of feasibility so far as that question depends upon cost. It would be matter of lasting regret, if the people and government of the United States were anticipated in this great work. Investigations should be at once commenced and directed to that part of the isthmus of which we are still almost wholly ignorant.

The department is preparing a plan of immediate operations, under the appropriation heretofore made, by which, it is hoped, valuable results will be obtained during the present season.

The first report of the officer in charge of this subject is herewith submitted.

ADVISORY BOARD.

At the last session of Congress a bill was passed through one house but not acted upon in the other, which provided for a board of experts to review the action of the bureaus, and to advise the Secretary in regard to the building, furnishing, and equipment of the navy.

My attention has been directed to the subject, and I am of opinion that some system of the kind proposed would be of great value for the information of the Secretary, on matters purely professional, and for the

purpose of harmonizing and concentrating the work of the various bureaus. These, under the system of independent action formerly pursued, were often antagonistic in their ideas and not unfrequently came into direct conflict with each other.

The provisions of the bill referred to, with some general modifications as to the composition of the board and the manner of its appointment, would, I think, meet the wants of the department on this subject.

The board should, however, be wholly advisory, and without the power of interfering with the action of the Executive or his responsible representative.

RELATIVE RANK.

The subject of relative rank in the various corps of the naval service is one of much interest and some difficulty. Some of these corps are dissatisfied with their position under the law as it now stands, but there is no power in the department to change this, even should the propriety of such action be admitted by all. Rank can only be fixed by law. This subject, involving at the same time so many considerations of discipline, efficiency, and feeling, is now pressing for wise and dispassionate legislation, having in view only the best interests of the service.

A board, composed of officers of high rank and long experience, representing equally the various personal interests involved, has been constituted by the department to consider and report some proper system for the regulation of this matter. Pending the report of this board I desire to express no opinion on the subject-matter of their consideration. Should they be able to arrive at a proper conclusion, the result of their labors will be at once communicated to Congress for their information.

RETIRED OFFICERS.

Much injustice to the many distinguished officers on the retired list is now done by the operation of the act of March 2, 1867, requiring the advance of all officers on that list, as their respective grades on the active list are promoted. Many officers retired years ago on account of the condition of their health, or for the good of the service, are now regularly promoted under this law, and take rank with those who have gone on the list disabled by service or covered with honorable wounds. Some of those formerly retired, by long service in other times or gallant conduct during the late war, well deserve the honors of their profession; but it is not so with all.

The physical and mental condition of some officers renders their promotion worse than folly. It has occurred, that under the operation of the law referred to, the department was required to send an appointment of high grade to an officer long ago retired as a midshipman, who had rendered no service since, and who, confined as a driveling idiot in an asylum, could neither value nor understand the document which contained the expression of official confidence and favor.

It is hoped that this law will be so far modified as to leave some discretion in the application of its provisions.

In the year 1865, a board composed of Admirals who had commanded squadrons during the war, with Admiral Farragut as president, was convened by the Secretary of the Navy, to report the names of such officers as they deemed worthy of advancement, under the act of April 21, 1864. The board, after careful consideration, made a report strictly

according to the letter of their instructions, and their selection would, it is believed, have been satisfactory to the navy at large. The recommendations of the board were, however, not acquiesced in, and the advancement was made quite independently of their action. The result is that many officers consider themselves as unjustly treated, and a feeling of discontent exists, most undesirable in the service. Some of the cases affected by this action have been already acted on by the administration. But it is felt that the real merit of each case can only be properly judged of by those who were personally cognizant of all its circumstances, and that too many considerations would be lost sight of in the lapse of time to permit of direct action by the department without the risk of further mistakes.

It is suggested that the department be authorized to appoint a board of officers, removed by high rank from all personal interest on this question, to examine the cases complained of, and to report their conclusions for such action by the Executive and Congress as to them may seem proper.

Promotion for distinguished bravery has hitherto been confined to a single class of officers. This is not as it should be.

Distinguished gallantry and good conduct in battle should be held to entitle any officer of any class who exhibits it to promotion in his corps.

NAVAL PENSION FUND.

The pension roll on the 1st of November, 1869, was as follows :

1,342 invalids, annually receiving.....	\$123,643 10
1,614 widows and children, annually receiving.....	267,456 00
Total 2,956 persons, receiving a total of.....	<u>391,099 10</u>

In the last report the then Secretary of the Navy called the attention of Congress to the operation of the act of July, 1868, practically repudiating a portion of the interest on the bonds of the United States in which this fund is invested.

As the present trustee of this fund, I desire again to present the subject to their consideration, as exhibiting an attitude which seems to be unworthy of a great nation toward its defenders.

The report of the board appointed to examine and report upon the condition of the naval pension fund, and the laws relating thereto, is herewith transmitted.

EXPENSES AND ESTIMATES.

The sum of twenty-seven million eight hundred and eighty thousand six hundred and fifty-eight dollars (\$27,880,658) was expended up to the 1st of December, of which amount seven million seven hundred and ninety-nine thousand three hundred and seventy-three dollars (\$7,799,373) has been refunded to the treasury, leaving the actual expenditures since the last report, December 1, 1868, twenty million eighty-one thousand two hundred and eighty-five dollars, (20,081,285.) The appropriations for the year ending the 30th of June, 1870, were fifteen million eight hundred and seventy thousand five hundred and thirty-one dollars and sixty cents, (\$15,870,531 60,) a sum scarcely larger than that which was usually appropriated for the support of the naval establishment previous to the war, when our navy was comparatively small; before costly and

expensive steam machinery was largely in use, and the great expense of fuel incurred; when labor and materials were far below the present standard, and the hours of work one-fifth greater. With the greatly increased demand for expenditure in every field of operation the actual returns for money are now scarcely one-half of what they formerly were.

It is presumed that the appropriations for the present year were controlled by the fact that some surplus then remained at the command of the department, and that they did not really represent the understood requirements of the service.

The estimates for the fiscal year ending June 30, 1871, are based on a force of twelve thousand (12,000) men (an increase of one-third) as the very smallest with which the present navy can be operated to advantage, and are as follows:

Estimates for the fiscal year ending June 30, 1871.

Pay of officers and seamen of the navy.....	\$7, 600, 000 00
Repairs of buildings, docks, and incidental expenses in navy yards.....	3, 722, 494 00
Pay of civil establishments in navy yards, hospitals, &c.....	434, 647 50
Ordnance.....	1, 119, 062 00
Coal, hemp, and equipments.....	2, 000, 000 00
Navigation, and navigation supplies.....	202, 500 00
Naval Academy.....	234, 540 00
Naval Observatory and Nautical Almanac.....	39, 800 00
Repair and preservation of vessels.....	6, 975, 000 00
Steam machinery, tools, &c.....	1, 750, 000 00
Provisions.....	1, 405, 200 00
Repairs of hospitals and laboratories.....	57, 800 00
Surgeons' necessities.....	72, 000 00
Contingent expenses.....	1, 532, 000 00
Support of Marine Corps.....	1, 060, 627 87
Total.....	28, 205, 671 37

RESPONSIBILITY OF DISBURSING OFFICERS.

The laws regulating the responsibility of officers disbursing the money appropriated to the naval service are inadequate.

The department has endeavored to remedy this defect by stringent regulations, and the requirement of prompt returns; but further legislation on the subject is needed for the security of the government, and the attention of Congress is called to the subject.

There are many other subjects of local and general interest pressing upon the attention of the department, but for which I have not found place for special mention in this report. Some of them are particularly referred to in the reports of the several bureaus, and others will be hereafter communicated.

BUREAUS.

The chief of the Bureau of Construction and Repair estimates for current wants, and asks an additional and special appropriation to collect supplies of timber to be seasoned for future use.

The chief of the Bureau of Ordnance reports that, on the recommendation of a special board, deteriorated cannon and ordnance stores at

northern navy yards have been and are being sold, and the proceeds deposited in the treasury. An estimate for thirty guns of fifteen-inch calibre is submitted. None other are required. He calls attention to estimate for a niter depot, and to the question of additional magazines remote from cities and towns, and urges action at an early date. The interests of the country demand that every new improvement in ordnance or war materials should be carefully investigated, and, where shown to be valuable, speedily adopted. Temporary structures for magazines and workshops have been erected on Goat Island, near Newport, for the torpedo corps, and the sum asked for in connection therewith is deemed necessary.

The chief of the Bureau of Navigation states that additional apparatus is needed for the Naval Observatory, and special estimate for this is made and favorable action asked. In regard to the Nautical Almanac, it is suggested that almanacs of at least three years advance date should be supplied to vessels bound on long voyages, and considerable progress, it is stated, has been made to meet this want.

For charts and sailing directions the navy is mainly dependent upon foreign supply. An additional appropriation should be made to enable the hydrographic office, as soon as possible, to do away with this necessity. The bureau has already published valuable results from surveys made by our own vessels, and should be enabled to continue and perfect them. The army code of signals for general use, in connection with the present naval code, having been adopted, a department of that character has been established and is engaged in perfecting this branch of the service.

The apprentice system is regarded as having failed to accomplish the object desired, because boys are entered with the idea of becoming officers, and after the number allowed by law have been selected and admitted into the Naval Academy, the others become dissatisfied and useless. The chiefs of the Bureaus of Navigation, and Equipment and Recruiting, harmonize in opinion that the law in relation to apprentices and minors should be amended.

The chief of the Bureau of Equipment and Recruiting details the operations at the several yards in equipping vessels for sea under the new rules now established. Vessels are now taken in hand as soon as put out of commission, completely refitted and equipped, and if not required for immediate use, properly stored. This practice promotes economy and efficiency. Attention is called to the Boston and Washington navy yards, and certain improvements in reference to rope walks and anchors are recommended. The insufficiency of the law in regard to contracts for coal and other supplies suggested. A modification of the law is also suggested, regulating the number of men in the navy, allowing an excess when specially required. The present law in regard to desertions should be so amended that a deserter may be apprehended at any time, and compelled to serve out his term of enlistment.

There is a lack of professional assistance to the bureau. An officer not below the grade of commander should be authorized by law as an assistant to the chief of the bureau.

The chief of the Bureau of Yards and Docks refers to the inefficiency of our navy yards, which was so painfully obvious during the rebellion, when the aid of almost every ship yard and machine shop in the country had to be called in. He also refers to the different yards in detail, and asks appropriations for their improvement, and in conclusion says "the appropriations asked are only for objects deemed indispensably

necessary, no appropriations for the purpose having been made for the last three years."

The chief of the Bureau of Provisions and Clothing earnestly recommends that a supply of clothing be advanced to men enlisting free of cost; and suggests an increase in the ration in some particulars.

The chief of the Bureau of Steam Engineering reviews the condition of his department at the time he took charge. The appropriations available for the close of the fiscal year 1868-'69 and 1869-'70, together, amounted to about \$800,000. Had the intentions of his predecessor been carried out, \$424,068 would have been paid to contractors and \$345,992 for tools and machinery—thus leaving only \$30,000 for all the work of the bureau. By satisfactory arrangements contracts have been cancelled and some \$150,000 reserved for more immediate necessities. The engines and machinery scattered about the country have been taken in charge and stored in the navy yards. Tools contracted for have been delivered, and arrangements made to defer payment until Congress should make necessary appropriation. The funds thus saved and rendered available have been devoted to the necessary re-fitting and repairing of the machinery of ships required for service.

All the yards, except Pensacola, have been inspected in their engineering departments. The bureau has made no contracts for supplies for past and present fiscal years, owing to the smallness of the appropriations. The estimates for the next year for all objects under the bureau amount to \$1,805,520.

The chief of the Bureau of Medicine and Surgery submits the statistics of the number of cases treated and various forms of disease prevailing in the navy, also a statement of the insane of the navy, and the condition of the naval hospital fund, the balance on hand October 1, 1869, being \$428,825 25. Attention is called in detail to the repairs and improvements necessary at the several hospitals.

The commandant of the Marine Corps reports that on inspection, the corps is found in a high state of efficiency and discipline. There are 2,300 enlisted men in this service, 1,000 of whom are on board vessels in commission.

The marines are often called on to assist the civil authorities in the principal cities, and on several occasions during the present year have been thus used at New York and Philadelphia.

The estimates for the quartermaster's department of the Marine Corps show a reduction of over \$112,000, as compared with the previous year.

All the bureaus urge the necessity for addition to their clerical force and in this the department entirely concurs. The reduction made last year in the working force is found to have been too great, and great difficulty is experienced in getting through with the active work of the department, greatly increased as it has been by the introduction of the new regulations and requirements of duty.

The present requirement of full reports and direct accountability in all subjects, and the system of personal review of the action of the various bureaus, has greatly increased the work in the Secretary's office proper.

Since the abolition of the office of Assistant Secretary, the office of chief clerk of the department has much increased in importance. As the direct representative of the Secretary in charge of all matters not professional in their nature, the work of this officer is one of large responsibility and very great labor. The duties have been well and promptly performed, and the estimated increase in the salary is recommended. Under the present allowance of but three watchmen for the whole de-

partment, the men are overworked and the building and archives are in constant danger of fire.

CONCLUSION.

I have thought it proper in the first report of your administration to explain fully the present condition of the naval establishment, and to point out, with some particularity, the general principles which I think should be adopted for its improvement.

In doing so, I have been led to discuss some questions of public policy which have relation to the field of naval service, and which must be considered in judging of its present and determining on its future condition. I am not unmindful, however, of the fact that the present condition of the country demands the strictest economy in every branch of the public service; and many of the suggestions which I have felt it my duty to make, must be understood as pointing to that for which we should strive, rather than that which we may at once accomplish. With the necessary information and proper suggestions before them, Congress must be the final judge of what the situation demands, and the resources of the country will permit.

What the department has done during its brief period of your administration is before you. Squadrons reorganized, ships refitted, expenditures reduced, economy required, and responsibility enforced: this is what it has attempted. It must be left to your judgment, and to that of the country, to say if it has accomplished anything of its work.

For whatever has been done, simple justice demands that I should express how much we are indebted to the practical wisdom of my immediate predecessor, to the skill and exertions of the chiefs and officers of the several bureaus, and to the comprehension, energy, and ability of the distinguished officer detailed by you for my assistance, to whom the department and his country are so much indebted.

GEO. M. ROBESON,
Secretary of the Navy.

The PRESIDENT.

SUPPLEMENT.

LIST OF VESSELS REPAIRED AND REFITTED FOR SEA.

Agamenticus,	Frolic,	Monadnock,	Seminole,
Alaska,	Galena,	Monongahela,	Shawmut,
Algoma,	Gettysburg,	Montauk,	Shawnee,
Algonquin,	Guard,	Nahant,	Shenandoah,
America,	Guerriere,	Nantasket,	St. Mary's,
Ammonoosuc,	Hartford,	Nantucket,	Suncook,
Albany,	Independence,	Napa,	Supply,
Brooklyn,	Jamestown,	Naubuc,	Susquehanna,
Camanche,	Juniata,	Niagara,	Swatawa,
Canandaigua,	Kansas,	Nipsic,	Ticonderoga,
Canonicus,	Kickapoo,	Ossipee,	Triana,
Catakill,	Koka,	Passaic,	Tunxis,
Chickasaw,	Lackawanna,	Pawnee,	Tennessee,
Cohoes,	Lancaster,	Pensacola,	Wabash,
Colorado,	Lehigh,	Phlox,	Wassuc,
Constellation,	Mahopac,	Resaca,	Waxsaw,
Cyane,	Manayunk,	Sabine,	Winnebago,
California,	Manhattan,	Saco,	Wyoming,
Congress,	Miantonomoh,	Severn,	Worcester,
Dacotah,	Minnesota,	Saranac,	Yantic,
Dictator,	Modoc,	Saugus,	Yazoo.
Fortune,	Mohican,		

Numbering 86 in all, including monitors and tugs.

EXHIBIT OF EXPENDITURE.

1869.	Amount drawn.	Amount refunded.	Amount expended.
March	\$2,727,345 19	\$1,093,112 91	\$1,634,232 28
April	1,663,736 47	213,255 36	1,450,481 11
May	1,463,635 19	452,351 54	1,011,283 65
June	2,825,396 24	805,441 46	2,019,954 78
July	2,095,352 15	239,191 43	1,856,160 72
August	2,294,016 59	670,545 95	1,623,470 64
September	2,525,268 32	222,268 72	2,302,999 60
October	2,521,096 96	136,951 16	2,384,145 80
November	1,846,366 96	187,348 25	1,659,018 71
	19,962,214 07	4,020,466 78	15,941,747 29

PLAN OF NAVAL ESTABLISHMENT IN TIME OF PEACE.

The most efficient organization for a navy of the size and with the duties of our own would be, iron vessels, for coast defense, averaging, each, 800 tons	40
First-class armor-plated vessels, for foreign service, averaging, each, 3,000 tons	10
First-class wooden vessels, to act as flag-ships, not to exceed, each, 3,500 tons	10
Second-class wooden vessels, averaging, each, 2,000 tons	20
Third-class wooden vessels, averaging, each, 1,000 tons	25
Fourth-class wooden vessels, averaging, each, 600 tons	55
Wooden store-ships, averaging, each, 500 tons	6
Wooden receiving-ships, of 1,333½ tons each	4
Training and practice-ships, averaging 1,200 tons	5
Wooden gunnery-ship, for the training of "seamen gunners," 1,500 tons	1
Sailing vessels to form a coast squadron, in which apprentices will be trained, averaging, each, 1,200 tons	8
Receiving-ships for apprentices, averaging, each, 1,200 tons	2

This force would amount, in all, to 186 vessels, 24 less than we now have; and most of the vessels for the coast defense, and a considerable number of the wooden ships required for the various services, are already on hand.

MERCANTILE AND NAVAL TONNAGE.

There were belonging to the United States on the 30th of June, 1868:

	Tons.
Registered sail vessels.....	1, 310, 344
Registered steam vessels.....	221, 939
Enrolled and licensed sail vessels.....	1, 929, 798
Enrolled and licensed steam vessels.....	977, 946
Total.....	4, 440, 027
To which add tons remaining of old measurement of registered sail vessels.....	33, 449
	<u>4, 473, 476</u>

This tonnage is classified as follows:

Atlantic and Gulf Coast.

19,467 vessels of all kinds..... 2, 974, 974

Pacific Coast.

904 vessels..... 166, 512

Northern Lakes.

5,365 vessels..... 695, 604

Western Rivers.

2,382 vessels..... 481, 217

28,118 vessels..... 4, 318, 307

Whale Fishery.

238 vessels..... 71, 342

Cod and Mackerel Fishery.

Enrolled vessels over twenty tons:

1, 467 vessels..... 74, 762

Licensed vessels under twenty tons:

748 vessels..... 9, 065

2, 215 83, 827

Grand total 4, 473, 476

Tonnage of American vessels entering from, and clearing to, foreign ports during the fiscal year ending June 30, 1868.

Countries.	Entered.	Cleared.	Countries.	Entered.	Cleared.
Russia on the Baltic and White Sea	7,217	5,804	French possessions in Africa	3,505	2,944
Asiatic Russia		1,036	Spain on the Atlantic	11,481	19,140
		6,840	Spain on the Mediterranean	16,499	9,591
Russian North American possessions prior to their cession to the United States	3,385	3,633	Canary Islands	285	2,741
Prussia		806	Philippine Islands	18,894	2,539
Sweden and Norway	3,958		Cuba	665,210	648,481
Swedish West Indies		133	Porto Rico	47,807	44,421
Denmark	436		Portugal	2,476	5,695
Danish West Indies	11,768	18,747	Madeira	703	1,825
Greenland	2,397	995	Cape de Verde Islands	2,890	1,484
Hamburg		1,894	Azores	1,176	2,565
Bremen	30,971	31,586	Italy	26,213	19,228
Holland	4,305	5,991	Sicily	33,930	3,557
Dutch West Indies	9,159	5,135	Austria		718
Dutch Guiana	2,240	1,247	Turkey in Europe	1,088	2,225
Dutch East Indies	3,873	4,988	Turkey in Asia	3,005	2,369
Belgium	9,745	12,417	Egypt		377
England	412,718	416,271	Liberia	2,846	3,246
Scotland	9,800	11,238	Other ports in Africa	5,357	3,382
Ireland	1,705	14,468	Haiti	12,949	14,643
Gibraltar	1,413	9,943	San Domingo	3,710	360
Malta		326	Mexico	44,749	59,382
Canada	1,064,963	1,094,173	Nicaragua	37,953	34,064
Other British North American possessions on the Atlantic	246,330	268,884	Costa Rica	590	612
British American possessions on the Pacific	68,538	75,352	Guatemala	372	41
British West Indies	63,379	65,978	Honduras	212	
British Honduras	8,679	8,757	United States of Colombia	267,216	316,769
British Guiana	11,401	12,905	Venezuela	2,764	2,417
British possessions in Africa	4,277	7,108	Brazil	55,695	50,439
British East Indies	29,678	18,906	Uruguay	4,653	21,485
Australia	9,962	21,169	Buenos Ayres or Argentine Republic	15,845	18,543
France on the Atlantic	64,923	114,513	Chili	4,093	7,636
France on the Mediterranean	11,563	25,648	Peru	28,248	21,704
French North American possessions		317	Ecuador	116	116
French West Indies	3,334	11,736	Hawaiian Islands	19,483	21,350
French Guiana	447	549	Other islands on the Pacific	2,008	5,338
			China	15,093	39,381
			Japan	29,220	38,599
			Other ports in Asia	738	
			Whale fisheries	19,064	16,738
			Total	3,550,550	3,717,956

Mercantile tonnage of France is 2,000,000 tons.

Mercantile tonnage of England is 5,779,000 tons.

The French navy consists of 430 vessels, divided as follows:

Steam vessels 331, with 76,135 horse-power; sailing vessels 99.

Of these, launched but still unfinished, 7 steam vessels, 710 horse-power; 31 steam vessels on stocks, 13,405 horse-power.

This fleet is subdivided into new fleet and old fleet. New fleet has 314 steam vessels; sailing vessels 70; and is divided into—

Armored ships of every class	50.
Wooden fighting-fleet screw vessels	90.
Steam flotilla	90
Transport fleet	75.
Training ships for officers and gunners	2.

Added this year: 4 iron-plated corvettes, 1 iron-plated coast-guard ship, 2 training ships.

This represents the real strength of the French navy. The old fleet is rapidly being transformed or going out of the service.

The whole tonnage of the French navy is 469,000 tons.

Navy of England.

By the last British naval list:	
Ships of war, floating batteries, receiving ships, training ships, in service	549
Steam screw gunboats.....	170
Total.....	719
In commission, or building, heavy armor-plated steamships, averaging 3,500 tons each, (largest 6,000 tons).....	
	40
	Tons.
Whole tonnage of the British navy is.....	660,000
Whole tonnage of the navy of the United States is.....	186,552
Proportion of naval tonnage of the United States to mercantile, nearly	$\frac{1}{24}$
Proportion of naval tonnage of Great Britain to mercantile....	$\frac{1}{8}$
Proportion of naval tonnage of France to mercantile.....	$\frac{1}{4}$

APPENDIX.

OPERATIONS OF THE FLEETS.

North Atlantic fleet.—Rear-Admiral Henry K. Hoff commanded the North Atlantic fleet until August. With some few exceptions the flag-ship Albany was stationed in the harbor of Havana until June, the state of affairs on the island of Cuba rendering it important to American interests that the commanding officer of the fleet should be in that vicinity.

In April he visited the Southwest Pass of the Mississippi in the execution of his instructions to arrest, as far as in his power, expeditions on foot to violate our neutrality laws, and in June made Key West his headquarters, the sickly season in Havana having set in.

July 10 he proceeded to Santiago de Cuba, taking with him the Gettysburg and monitor Saugus, and investigated the circumstances of the execution of two American citizens at that place, and returned to Key West *via* the south side of Cuba and Cape San Antonio, July 23.

August 17 he arrived at New York, in the Albany, agreeably to orders, and was detached from the command of the fleet.

His successor, Rear-Admiral Charles H. Poor, hoisted his flag on board the Powhatan, at New York, September 15; arrived at Key West *via* Havana, October 8, and has since then visited Havana and Matanzas.

Commander W. W. Queen, commanding the Tuscarora, and senior officer on the station, had charge of the fleet from the departure of Rear-Admiral Hoff to the arrival of Rear-Admiral Poor. August 24 he sailed from Key West in the Tuscarora for St. Domingo City, on special service, and returned September 29. The Tuscarora is at present stationed at Aspinwall.

The Gettysburg having returned from the station for repairs, &c., was put out of commission at New York, October 21. Her service was principally in the waters of Cuba. From March until June she was stationed at Aspinwall, and in July visited some of the Haytien ports.

The Penobscot, in the early part of the year, cruised on the Colombian coast. February 3 she arrived at Havana, and until June was employed in Cuban waters. She was put out of commission at Portsmouth, N. H., July 9.

The Nipsic was on service in Haytien waters until the middle of January; from January to March at Aspinwall; and April, May, and June on the Cuban coast. She arrived at Washington July 21 for repairs and a new propeller.

The Yantic remained at Aspinwall, with the exception of a visit to Carthagena, from November 10 to January 18; cruised on the Haytien coast until the middle of May; returned to Aspinwall in June; left late in August; on duty in the waters of Hayti September and October; and arrived at New York November 5, having lost her commanding officer and others by fever.

The Narragansett was commissioned at New York, January 16; joined the fleet in March; cruised on the Cuba and Florida coasts until late in

June; and, yellow fever appearing on board, was ordered to Portsmouth, N. H., and put out of commission July 9.

The *Saratoga* was temporarily attached to the fleet, (May 10 to June 11,) but ordered to New York and put out of commission on account of yellow fever.

The *Seminole* reported for duty in the fleet at Key West, August 14, having been on special service to St. Domingo and St. Thomas, and sailed August 18 for Aspinwall.

The *Saugus* arrived at Key West July 3 from Hampton Roads, and, with the exception of a visit to Santiago de Cuba, has been stationed on the Florida coast.

The *Dictator*, *Nantasket*, and *Severn*, have recently been added to the fleet, and the *Albany* sailed from New York November 10 to rejoin it.

South Atlantic fleet.—In October, 1869, Rear-Admiral Charles H. Davis gave General McMahon passage in the flag-ship *Guerriere* from Rio de Janeiro to the La Plata, and thence to the Paraguayan lines in the *Wasp*, to which his flag was temporarily transferred. The *Wasp*, accompanied by the *Pawnee*, *Quinnebaug*, and *Kansas*, arrived off Rosario in November. The *Pawnee* and *Quinnebaug* remained at that point, and the *Wasp* and *Kansas*, continuing up the river, December 3d, came to anchor off Angostura, Paraguay. After an interview between Rear-Admiral Davis and President Lopez, and completion of preparations for the reception of General McMahon, the latter was landed December 12, and received by several officers of President Lopez's staff. The same evening Rear-Admiral Davis repassed the lines in the *Wasp*, leaving the *Kansas* at Corrientes, to receive expected dispatches for General McMahon and convey them to him, and arrived at Montevideo December 18.

The *Guerriere* sailed from Montevideo the 15th, and arrived at Rio de Janeiro the 21st of January; returning, left Rio the 11th, and reached Montevideo the 21st of February. Rear-Admiral Davis, on the 17th of June, placed the fleet in charge of Captain M. B. Woolsey, senior officer of the station, and returned in the *Guerriere* to New York, arriving 18th July.

The *Kansas*, finding it impossible, under the situation of affairs between the opposing armies, to communicate with General McMahon, left Paraguay in January, and reached Montevideo March 8, having been aground several weeks. August 5 she sailed for the United States, and arrived at New York September 9.

The *Wasp* visited Asunsion again, in February, to investigate the reported pillaging of the United States legation and the destruction of the archives, and to endeavor to communicate with General McMahon. The investigation was conducted, and every effort made to communicate with the minister. Communication was impracticable, in consequence of the position taken by the allied forces, and the *Wasp* left Asunsion March 8, touched at Corrientes and Rosario, and arrived at Montevideo the 15th of that month.

The *Pawnee* and *Quinnebaug*, after the service up the Paraguay, as heretofore stated, returned to Montevideo. The former arrived at New York June 26.

The *Portsmouth* joined the fleet in April. She has been used by Captain Woolsey as his flag-ship, and has visited the principal ports on the coast of Brazil.

Rear-Admiral Joseph Lanman, the present commander of the fleet, sailed in his flag-ship, the *Lancaster*, from Hampton Roads, the 21st of October last.

Pacific fleet.—Until the 28th of June there were two distinct commands on the Pacific station—the North Pacific squadron, under Rear-Admiral T. T. Craven, and the South Pacific squadron, under Rear-Admiral Thomas Turner.

In November, 1868, Rear-Admiral Craven sailed from San Francisco in the *Pensacola*, visited the principal ports in the Gulf of California, also Acapulco, and returned December 9.

In April he transferred his flag temporarily to the *Ossipee*. The *Pensacola* made a second cruise to the Mexican coast, and returned June 11.

The *Ossipee*, from November 13, 1868, to April, 1869, was stationed among the Sandwich Islands. She returned to San Francisco April 19.

The *Mohongo* arrived at San Francisco from the Sandwich Islands November 28. In January and February she cruised in the Gulf of California, and returned to San Francisco March 4; March 12 left again on a similar cruise, and returned May 19. Her officers and crew were transferred to the *Mohican*, and she was put out of commission May 27.

The *Cyane* left Panama March 26, arrived at San Francisco June 14, and was put out of commission.

The *Jamestown* sailed from San Francisco February 17, visited some of the Mexican ports, and arrived at Panama May 24.

The *Lackawanna* was put out of commission at San Francisco in February last, having returned December 31 from a cruise on Mexican coast.

The *Resaca* sailed from San Francisco December 15, visited Acapulco and Mazatlan, and returned in April for repairs.

The *Saginaw* left San Francisco December 1, 1868, for Sitka, arrived December 22, remained several months in the waters of Alaska, and returned to San Francisco in April.

Rear-Admiral Turner sailed from Callao, in the *Powhatan*, December 4, 1868, visited Pisco and Coquimbo, and arrived at Valparaiso December 22. In January visited Loto and Talcahuano, and returned to Valparaiso the 12th of February. In April proceeded to Talcahuano, taking with him most of his fleet, which he dispatched to different parts of the station, and returned in the *Powhatan* to Valparaiso. Having been ordered to command the Pacific fleet, he left Callao in mail steamer for San Francisco May 28, and arrived June 28. The *Powhatan* sailed for New York June 1, arrived September 11, and was ordered to the North Atlantic fleet.

The *Tuscarora*, in February, was sent from Callao to Buena Ventura, to investigate the circumstances connected with the imprisonment of the United States consul at that port and insult to the consular flag. She arrived there 23d February, remained several days and returned to Callao, thence to Valparaiso. May 12 she left the latter port for the North Atlantic station, and arrived at Key West, Florida, July 28.

The *Dacotah* was stationed in the vicinity of Callao until ordered to San Francisco for repairs and alteration. She arrived at Mare Island July 26.

The *Kearsarge* cruised during the early part of the year off the coasts of Peru and Chili. April 17 she sailed from Talcahuano for the Marquesas, Society, Navigators, and Feejee Islands, New South Wales, and New Zealand, to look after American interests in those distant regions. She was at the Marquesas June 6; the Society from the 13th to the 24th June; the Navigators from the 4th to 10th July; the Feejees from the 18th to the 24th of July; and arrived at Sidney, New South Wales, August 12.

The *Nyack* was under repairs at Callao for several months. Since the

date of their completion in April, she has been stationed on the Peruvian and Chilian coasts.

The Onward has been cruising on the South American coast, and has been recently ordered to Panama to receive the stores from the naval store-house, which is to be discontinued.

June 28, Rear-Admiral Turner hoisted his flag on the Pensacola, at San Francisco, and took command of all the vessels which had constituted the North Pacific and South Pacific squadrons. In August he visited Esquimaux, Steilacoom, Olympia, and Port Townsend.

The Pensacola requiring repairs, he transferred his flag to the Mohican October 4, and proceeded to the Sandwich Islands; arrived there October 31, and expected to remain until December 1.

The Mohican sailed from San Francisco June 29 for Plover Bay, Siberia, conveying thither the party which had been detailed by the department to take observations of the eclipse of the sun. She arrived at her destination July 30, departed August 7, and reached San Francisco September 21.

The Cyane was recommissioned at Mare Island September 13, and sailed on the 20th for Sitka, having been specially fitted out and provided for service in the waters of Alaska.

The Saginaw left San Francisco July 28 for the Mexican coast, and returned November 11. She is now being prepared, and will soon be ready, to proceed to the Midway Islands, where she is to remain in connection with party to be engaged in deepening the entrance to the harbor at those islands.

The Resaca left San Francisco October 30 for Panama.

The Jamestown sailed from Panama August 20, on a cruise to the Feejee and Caroline Islands to investigate complaints made by citizens of the United States of unfair treatment and violence, and to look after our interests generally in that quarter. On completing this duty she returns to the coast of Chili.

The special assignment of vessels for the north and south squadrons of the Pacific fleet has not yet been made.

Commodore William Rogers Taylor, commanding the north squadron, at present has his flag on board the Ossipee, which vessel is repairing at Mare Island.

European fleet.—Commodore A. M. Pennock was in charge of the European fleet from October, 1868, to February 28, 1869.

In November, 1868, he visited, in the Ticonderoga, Barcelona. In December, he transferred his flag to the Frolic, proceeded from Marseilles to Malaga, returned to Villefranche, via Leghorn, January 25th; shifted his flag back to the Ticonderoga, and repaired with that vessel to Lisbon, to meet Rear-Admiral Radford.

The Ticonderoga, in January, was dispatched to the Grecian Archipelago to investigate the report, which proved untrue, that the American flag had been improperly used by Greek vessels in that quarter. She returned to Nice January 18.

Rear-Admiral Radford arrived at Lisbon February 28, from New York, in the Franklin. In pursuance of instructions, he ordered the Ticonderoga, Frolic, and Swatara, to the United States. The Ticonderoga arrived at Boston, April 26, the Frolic at New York, May 1, and the Swatara at Philadelphia, May 25.

The places of these vessels were supplied by the Franklin, Richmond, and Plymouth; the Richmond having arrived out in February, the Plymouth in March, the Juniata in September. Leaving Lisbon April 14, the Franklin touched at Cadiz, Gibraltar, and Algiers, and arrived at Toulon May 11. She left Toulon in June, visited in succession Ville-

franche, Genoa, Naples, Trieste, and Tunis, and returned to Marseilles the 19th of September.

March 15, the Richmond left Lisbon for a cruise to Athens and other ports in the archipelago, and the east. Touched at Gibraltar, Cartagena, Algiers, Palmas Bay, Tunis, Malta, Athens, Smyrna, Syria, Milo, Alexandria, Tripoli, Messina, Naples and Spezia, and arrived at Lisbon 24th June.

The Plymouth sailed from Lisbon April 4, and was stationed on the Spanish coast until July. Since then she has visited Naples, Leghorn, Athens, Smyrna, Beyrout, Jaffa, Alexandria, Tripoli, Messina, Palermo, and Marseilles. She has recently been ordered to England, to accompany the remains of the late George Peabody to the United States.

The Juniata was at Barcelona 18th October.

The store-ship Guard arrived October 12 at New York, and was put out of commission.

The Canandaigua left Gibraltar for home November 11, 1868; touched on the way at the Cape de Verds, Monrovia, Cape Palmas, St. Paul de Loanda, Ascension and Barbadoes, and arrived at New York February 11.

The store-ship Supply is on the eve of sailing from Boston for Spezia with stores for the fleet.

Asiatic fleet.—The vessels of the Asiatic fleet have been stationed in the waters of Japan the greater part of the year, as the civil war in the empire required close attention from the commanding officer of the fleet and those under him to insure respect and protection to American interests, citizens, and property.

Rear-Admiral Stephen C. Rowan, commanding the fleet, from November, 1868, to May, 1869, cruised in his flag-ship the Delaware, on the coast of China, passing to and from the ports of Shanghai, Amoy, Hong Kong, and Whampoa. May 15 he left Shanghai, arrived at Nagasaki June 8, and has since then been engaged on the coast of Japan.

The Oneida left the coast of Japan in February for Hong Kong; sailed from the latter March 6 for Siam; visited Bangkok and Saigon; returned to Hong Kong April 15; and in May resumed her station in Japanese waters.

The Monocacy in January conveyed Minister Resident Van Valkenburg from Yokohama to Yeddo and back; in February arrived on the coast of China; and in April gave passage to Minister Resident Browne from Hong Kong to Shanghai, touching on the way at Swatow, Amoy. Foochow, and Ningpo, and reaching Shanghai the 27th of that month. In June she returned to Japan, which has since been her station.

The Iroquois visited the islands of Manilla and Formosa, and returned to Hong Kong January 17. She proceeded in April to the Japanese coast, where she was at the date of last report.

The Ashuelot in December, 1868, arrived in Japan from China, and has been stationed on the coast of the former.

The Unadilla has been in service in China during the year; the Maumee in Japan until July—subsequently in China; and the Aroostook, since January last, in Japan. The three vessels last mentioned have scarcely been fit for coast service—have been condemned, and the Aroostook has been sold.

The Idaho, store and hospital ship for the fleet, was stationed at Nagasaki until September, when she left for San Francisco *via* Hong Kong, but being overtaken before reaching the latter port by a severe typhoon and seriously disabled, she returned to Yokohama.

The Shenandoah arrived at Boston from the Asiatic station April 26, having touched en route at Batavia, Cape Town, and St. Helena.

REPORTS OF BUREAUS.

BUREAU OF EQUIPMENT AND RECRUITING.

BUREAU OF EQUIPMENT AND RECRUITING,
Navy Department, Washington, October 13, 1869.

SIR: I have the honor to submit the following report of the operations of this bureau, together with suggestions relative to certain changes which, it is believed, would facilitate its working in the future; and, also, estimates of the amount required for the fiscal year ending June 30, 1871.

GENERAL OPERATIONS AT THE VARIOUS YARDS.

The general operations of equipment at the various navy yards have been confined, during a large part of the year, to preparing for sea vessels which were required to relieve others ordered home from foreign squadrons. Twenty-five vessels were thus equipped, of which five were entirely fitted with standing rigging of wire rope; three with new hemp rigging; and the others by repairing that of wire or hemp which they already had.

In the latter part of the year, a change in the rule with regard to preparing vessels for sea somewhat stimulated operations. It had been the custom, on the return of a vessel from a cruise, to lay her up and store her equipments; and, generally, nothing was done toward preparing her for another cruise until it was *known* that she was to be required for one, in the immediate future. This system was productive of great embarrassment. When the time arrived, it was, in the absence of any previous survey, always uncertain what amount of repairs, and consequently, what length of time would be necessary to equip her. As a rule, emergencies requiring a vessel for immediate use passed before she could be got ready; or, in order to prevent this, such portions of the equipments of various other vessels as could be made to answer had to be used.

Under the present rule, as soon as a vessel goes out of commission, the work of refitting her is commenced, and it is steadily continued until her equipments are ready for use. They are then stored, and when the vessel is wanted, the brief time necessary to put them on board and fit them in place can be determined to a day.

The adoption of this rule conduces directly both to economy and efficiency. By obviating the fitful employment of labor, it makes it less expensive to the government, while the work is better done and the accounts are more accurately kept. When it has been carried out as it is intended to be, with regard to all vessels now in ordinary, the force of workmen can be permanently reduced, and the stock of material to be kept on hand, subject to deterioration, or becoming antiquated, can be brought to its minimum.

The labor of equipping vessels, especially as regards rigging and sails, is performed at a great disadvantage, owing to the insufficient accom-

modation and conveniencies of the rigging and sail-lofts at most of the navy yards. The sail-loft at Boston, and the rigging and sail-lofts at Norfolk, are the only proper establishments of the kind. The rigging-loft at Boston, particularly, is of insufficient capacity to stretch the rigging of vessels of large size. An estimate is submitted by the Bureau of Yards and Docks for the construction of the necessary buildings, which it is hoped may be granted.

WIRE ROPE.

The results of experience in the use of wire rope continue to justify its adoption. Opinion has turned almost universally in favor of it, for the greater part of the standing rigging of vessels. With regard to its adaptation for the lighter rigging, as to which opinion remains somewhat divided, as well as to the best method of manufacture, preparation, and application, experiments continue to be made in practice, and much valuable information is obtained and applied.

OPERATIONS OF THE ROPE-WALK AT BOSTON.

The cordage of the navy, of hemp of various kinds, has been almost entirely supplied from the government rope-walk at Boston. But the operations of this establishment would be greatly facilitated by the completion of the tarring house, the estimate for which was stricken from the appropriation under the Bureau of Yards and Docks, at the last session of Congress. The amount for this purpose is again asked for.

There have been purchased during the past year of Russian hemp 336,000 pounds, at a cost of \$67,500; of Manila, none; of American, none; as none has been offered. The supply of the last is now exhausted. Steps have been taken to insure a supply of the Manila hemp of better quality, and at a lower price than heretofore, and to render it independent of the speculations and fluctuations of the American market.

Of hides for rope there have been purchased about 18,000 pounds, at a cost of \$4,234 57.

Of rope from American and Russian hemp there have been manufactured 225,900 pounds, at a total cost, when finished, of \$67,754; of rope from Manila hemp 303,351 pounds, at a total cost of \$55,067; and of hide rope 11,630 pounds, at a total cost of \$11,630.

ANCHORS, GALLEYS, ETC.

In respect to anchors, chains, galleys, &c., experiments are also conducted, as opportunity offers, and improvements made, as information, so obtained, indicates them. The operations of the government establishment for their manufacture, at Washington, have been continued, to the extent required to supply deficiencies of such articles.

Decided improvements are needed in this establishment, a full statement of which, by an experienced engineer, is appended to this report, and is urged upon your attention.

An important matter, in this connection, is that of securing the services of a man of the very best ability to conduct the operations of heavy forging. The difficulties to be surmounted in this kind of work are very great, and are a subject of complaint in every shop of the kind in the country. Proprietors are ever on the look-out for men of ability and experience in overcoming these difficulties, and pay them, without hesitation, liberal salaries. It is certain that the services of a proper

person can be obtained only for a much higher salary than is at present allowed. The bureau estimates for the pay which, it is believed, may be an inducement to some competent person to undertake the duties.

PURCHASES AND EXPENDITURES.

The purchases and expenditures of the bureau have been governed by a strict regard to economy, and to the use of all stock on hand before procuring additional supplies. In the purchase of canvas and coal, the bureau is frequently embarrassed by the *bids* of persons who are not producers of, or dealers in, these articles especially. Navy canvas is only made to order, and is subjected to a very rigid test and inspection. It is, therefore, more difficult to supply than the canvas used in the mercantile marine. Licensed *general* dealers, either ignorant or regardless of this fact, make offers and obtain contracts, for the supply of the article, at prices at which they find they cannot furnish it, of proper quality. As a consequence, great delays often occur in filling the requisitions made upon them, and work is brought to a stand-still while waiting for deliveries.

In the inspection of coal the standing of the producer and dealer is a matter of importance, as furnishing a guarantee of its quality, and that cargoes are of the same character throughout. Fictitious bids for this article, also, have been a source of delay and annoyance. To avoid these difficulties, it is recommended that the law in relation to contracts be so amended as to prohibit the entertainment of bids made by persons who are not producers of, or special dealers in, these articles respectively.

COAL.

A contract has been made for the supply, during the present fiscal year, of fifteen thousand tons of coal at Philadelphia, at five dollars and forty-seven cents per ton.

Proper coal sheds are much needed at several of the navy yards, and should be provided as soon as possible. As a consequence of the steps taken by the department to give all vessels full sailing power, and the orders given for its use, except in cases of necessity, some reduction in the consumption of this expensive article has already been achieved, and a much greater one is anticipated. In view of this fact, the following coal depots have been discontinued, or are to be after the expenditure of the stock on hand at each, viz: Halifax, Nova Scotia, and St. John's, Newfoundland; Cape Haytien; Curaçao; Point à Pitre (Guadeloupe); Lisbon; St. Paul de Loando and Fernando Po, (West coast of Africa); Honolulu, Sandwich Islands.

The saving to the government in this article will be very great; and this alone will compensate, in a short time, for any expenditure in altering spars and sails, to achieve the desired end. But the revival of professional exercises for the crews, and the acquisition of professional experience by those younger officers of the navy who, in consequence of the general reliance upon steam of late years, have not had the opportunity of obtaining it, will be, to the navy, an advantage, whose value, as well as that of others resulting from the release from dependence upon steam alone as a motive power, can hardly be estimated in money.

NUMBER OF MEN EMPLOYED.

The number of men employed in the navy has been kept within the limit prescribed by law; but only by the exercise of great care, and an

amount of clerical labor which is especially onerous, under the recent reduction. When vessels are to be relieved and sent home from foreign stations, if others were to be equipped and manned to take their places, prior to their departure for home, the number of men allowed would be exceeded, for a period of time covering the passage of one vessel to, and the other from, a foreign station—amounting, not unfrequently, to eight or ten months. This excess would be increased by the gradual character of enlistments, whereby portions of crews are often under pay, as part of the allowed force of the navy, long before the remainder are recruited and become a part of its effective force. The same is true with regard to men sent out to foreign stations to re-enforce reduced crews. No such excesses are provided for in the law, as it now stands; and, in order to avoid them, when vessels are to be relieved, they must be sent home and put out of commission before enlistments for the relieving vessel begin. The result is that the naval force which can be kept afloat is much smaller than would appear, by calculating the number of vessels which could be manned from eight thousand five hundred men. And even this force is made still smaller by the subtraction of the crews of receiving-ships, Naval Academy, and practice ships. It happens sometimes that the terms of service of portions of crews do not expire when the vessel to which they belong is put out of commission. Being frequently unable to dispense with the services of these portions, it becomes necessary, in order to avoid delay in filling the complements of other vessels, to send them on another cruise, without even a short leave of absence, and often, thereafter, to detain them beyond the expiration of their terms of enlistment—a growing evil, and one which causes great dissatisfaction among the men, and operates unfavorably on recruiting. Besides, the men so retained, (as is the case now with a considerable number,) receive, by law, an increase of twenty-five per cent. of their previous pay, which, of course, still further subtracts from the number that might be maintained from the sum appropriated.

Voluminous records, returns, &c., showing, at all times, the exact number of men in service, the current enlistments, and the future expiration of terms of service, are required, in order to avoid either exceeding the prescribed limit, or falling so far below it as to delay vessels whose services are needed. The records must be kept, in any event, for the purpose of verifying claims for pay, pension, &c., &c.; and, although they might not be very materially reduced, yet some of the returns, under circumstances of a less rigid restraint to a particular number of men, might not be required so frequently as at present, when the bureau, in order to keep within the law, must have the information for use almost daily. In other respects, also, the law operates disadvantageously and expensively. It is therefore recommended that it be so modified as to allow the temporary excesses which may be necessary to cover the cases referred to.

RECRUITING.

To the difficulties met with in recruiting men for the navy, the bureau would again refer. The vicious system of sailor boarding-houses, and its connection with and influence upon recruiting for the navy, as well as for the merchant service, have been referred to in my former reports, and are too well known to call for a new description here.

Efforts have long been made by ship-owners, merchants, philanthropists, municipal and State authorities to correct this abuse, and on the part of the government to resist its operation and effects, but without material success; and the navy remains nearly as dependent on it as

ever. Even if a man enlists without the intervention of the landlords of these houses, and has no debts for money loaned or board and clothing furnished by them to liquidate, he is still required to have an outfit, which he must draw from the paymaster of the receiving ship, and which being charged to him, constitutes an indebtedness to the government, as the advance allowed does in the former case.

A discouragement to enlistment is thus presented at the outset, and this is aggravated by the man's knowledge that until this indebtedness is canceled he cannot have an hour's liberty on shore, and will have no pocket-money to purchase little comforts which he does not find on ship-board, but will be strictly watched and guarded to prevent desertion. After enlistment the same conditions are a cause of discontent, make his ship a prison instead of a home, and operate as a premium to desertion. If he serves out his term of enlistment, he takes his discharge with a resolve never to re-enlist; and unless he falls into the hands of the landlords, he generally executes his resolve; so that, sooner or later, the landlords are sure to intervene between the sailor and the government, and they will not enlist men without the customary advance, &c.

If, instead of this state of things, men could be furnished, gratis, with an outfit on enlistment, so as not to be deprived, in consequence of their indebtedness, of liberty, and made to feel themselves prisoners; if they could be enlisted for a longer period, so that on their return from a cruise they could be provided with a home on the receiving ship nearest to their place of abode, and thus rendered content with short leaves and a portion of their pay; if they could be made to look upon service in the navy as a constant employment, and upon the government as their guardian and protector; and if they could be made *sure* of the benefits of continued service, it is believed that a great deal would be achieved in the right direction.

It is therefore recommended that each recruit receive, in lieu of all advances, a bounty in the shape of an outfit of clothing, or when this is not needed, an equivalent in money, to be credited to his account; and that he be also furnished with his mess utensils. He will then at once have something to lose, instead of everything to gain, by desertion, and will be made contented by an evidence of regard for his comfort.

It is further recommended that the term for which a man may enlist be extended to twenty years. These provisions, with the new features introduced into the system of advancement in the service, and that of the continuous service certificates recently adopted, (which will then be rendered in fact what they are now only in name,) it is hoped will render possible a more cheerful report in the future. But without some action to associate in the mind of the sailor service in the navy with greater pecuniary advantage, personal comfort, hope of advancement, and certainty of care and protection from his greatest enemies, the landlords, no improvement can be expected.

DESERTIONS.

It remains to consider the matter of desertion, which is still a great and embarrassing evil. The measures recommended will, if adopted, undoubtedly do much to diminish it; but it is necessary, in addition, to provide more thoroughly for the punishment of this crime. If furnished with the necessary comforts on board ship, and encouraged to good behavior, the sailor should not be dissatisfied if the penalties consequent upon misconduct are more rigorously enforced. Under present laws, the time during which a man may absent himself counts, in reckoning his time of service, the same as if he had not deserted; and, in some cases,

a man might not render more than two days' service under a three years' enlistment.

It is recommended that the law be so amended that a deserter may be apprehended at any time, no matter how long subsequent to his desertion, and obliged to remain in the service until he has actually served out the full term for which he enlisted. This is the law governing enlistments in the army, and it is found to operate advantageously. It is further recommended that the law in relation to minors be more exactly defined, so as specifically to authorize the enlistment of persons over eighteen years of age, and make the oath of the recruit conclusive as to his age.

DUTIES OF, AND LABOR IN, THE BUREAU.

One, and the primary, duty of this bureau is the development of intelligent and progressive systems for the equipment of vessels in the navy, and for the enlistment and organization of the *personnel* necessary to man them; so that, whatever the naval establishment might be in amount, it should be as perfect in its appointments and as little expensive as possible.

The first essential to the attainment of this object is the proper prosecution, in each of its branches, of the correspondence with, and duties relating to, the numerous navy yards, stations, squadrons, and rendezvous, and the collection, from all sources, of useful information. The second is, the preservation and compilation of the records thus made, so that the information and experience acquired may be made available and useful.

The assistance of a sufficient professional and clerical force is therefore indispensable, and the most cursory examination of the variety and importance of the objects and duties which engage its attention and require its intelligent action, will suffice to show that this force should, of necessity, be comparatively large. *It may, and ought to be*, in its professional character, supplied from officers of the navy, who alone can be thoroughly conversant with such of the duties as are connected with their own daily experience. In its clerical character, it should be, to a great extent, supplied from persons in civil life who are trained to business habits, which have not, heretofore, necessarily constituted a part of the education of naval officers.

The first-mentioned portion of this force has never been, until very recently, and then only partially, supplied, and the entire professional work of the bureau devolved on its chief. This is a greater labor than any one person can properly perform, even if the direction of the other labors did not require his attention; but, with the other demands upon his time, anything approaching to a proper satisfaction of these is impossible; to say nothing of the necessity of having an officer conversant with the duties of the bureau, to supply his place in case of illness or necessary absence. Having no professional assistant, no opportunity is afforded him for that personal inspection of the operation of the departments under the charge of the bureau at the various navy yards, so necessary to a proper direction of them, except by neglecting, for a time, his office duties.

The detail, very recently, of one officer for duty in the bureau has, in some measure, overcome this difficulty. But as the commission of Chief of Bureau is a special one, no officer so detailed can, as a mere matter of course, assume the duties in case of the illness or absence of the chief himself; he must be specially designated by the President for every such occasion—a condition materially detracting from the usefulness of the detail, and which should be remedied.

The civil portion of the service has, to some extent, been provided; but the bureau is again compelled to call attention to its insufficiency. This is, in point of fact, two distinct bureaus, with voluminous correspondence and records under each; and under each, the amount of work is quite equivalent, to say the least, to that of any other bureau. The clerical force has always been so inadequate as to almost entirely preclude compilation of the greater portion of the reports and returns, and the copying of the correspondence into the proper record books, leaving the bureau dependent, for reference to its most important letters, for several years after they are written, on "press copies" of them, hastily and often very imperfectly taken at first, and liable to fade so as to soon become quite illegible. Without this correspondence and these records, it would be utterly impossible to comply with the laws in regard to appropriations, accounts, pensions, enlistments, discharges, &c., to follow out the history of any matter under the bureau, or to furnish information required by the Pension Office and other branches of the government, many letters from which are now lying unanswered since the unfortunate reduction in July last.

The necessity for a laborer (the appropriation for whom, though allowed heretofore, was stricken out by Congress) is equally great. There are six apartments to be cared for, cleaned, heated, &c., and other constant work for a porter or laborer. At present this necessary work is performed by a laborer who is paid under another bureau, which has two.

While, therefore, the bureau is able to report that its work has been prosecuted with the utmost diligence, and, fortunately, so as not to retard materially its current operations, it is compelled to recommend, most urgently:

First. That an enactment by Congress be asked for (such as has been heretofore passed in the cases of some other bureaus, whose labors are less than those in either branch of this) authorizing the detail of an officer, not below the rank of commander, for duty in the bureau, to assist the chief in, and in case of his illness or absence to succeed to, his duties, so as to relieve the first-mentioned difficulty.

Second. That, at as early a date as possible, and for at least such period as will suffice to put the records of the bureau in proper condition, the re-establishment of its former clerical force, and an increase over it, as set forth in the estimate herewith submitted, be authorized and appropriated for.

Third. That the former appropriation for a laborer to the bureau be restored.

The efficiency of the bureau would thus be greatly increased. In a short time, the economy of its operations would be promoted to an extent much more than sufficient to counterbalance the small additional expenditure in salaries, and as soon as the work in arrears could be brought up, and the records compiled, a smaller force would suffice to prevent the recurrence of the embarrassments described.

The bureau might add a notice of several plans for the future, such as the preparation of a uniform system of watch and station bills, of seamanship exercises and instruction, and others which it has now and has for a long time had in view, and which will be immediately and substantially forwarded, to the great benefit and improvement of the service, whenever the force will admit. But it ventures to hope that the explanation already made will insure the desired increase at an early day.

I have the honor to be, very respectfully, your obedient servant,
M. SMITH, *Chief of Bureau.*

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

E. & R. No. 1.

Estimate of the amount required for the support of the Bureau of Equipment and Recruiting, for the fiscal year ending June 30, 1871.

For salary of chief of bureau, (act July 5, 1862).....	\$3,500
For salary of chief clerk.....	1,800
For salary of one fourth-class clerk.....	1,800
For salary of one third-class clerk.....	1,600
For salary of two first-class clerks, at \$1,200.....	2,400
For salary of one messenger, (act March 3, 1869).....	840

Increase respectfully submitted:

Additional pay to chief clerk.....	\$400
One third-class clerk.....	1,600
Two second-class clerks, at \$1,400.....	2,800
One first-class clerk.....	1,200
One laborer.....	720
	<hr/> 6,720
	18,660
For contingent expenses of the bureau.....	1,200
Total.....	<hr/> 19,860 <hr/>

E. & R. No. 2.

Estimate of the amount required for the purchase of materials and articles for the equipment of vessels in the navy, for the fiscal year ending June 30, 1871.

For the purchase of the various articles of equipment, viz: coal for steamers' use, (including expenses of transportation,) storage, labor, &c., hemp and other materials for the manufacture of rope, wire rope, hides, cordage, canvas, leather, iron, cables, anchors, furniture, galleys, hose, &c., &c., and for the payment of labor in equipping vessels, and manufacture of articles in the navy yards pertaining to this bureau.....	<hr/> \$2,000,000 <hr/>
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E. & R. No. 3.

Estimate for pay of the petty officers, seamen, ordinary seamen, landmen, and boys, including men for the engineers' force, for the fiscal year ending June 30, 1871.

The estimate being for the employment of 12,000 men at an average pay of \$300 per annum.....	<hr/> \$3,600,000 <hr/>
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E. & R. No. 4.

Estimate of the amount required for the pay of superintendents and civil officers, under the cognizance of the Bureau of Equipment and Recruiting, at the navy yards, for the fiscal year ending June 30, 1871.

PORTSMOUTH, N. H.

Clerk in equipment office.....	\$1,400
Store clerk.....	1,140
Time clerk.....	900

BOSTON.

Superintendent of rope walk.....	1,900
Clerk to superintendent.....	1,200
Clerk in equipment office.....	1,500
Two store clerks, (one at \$1,400 and one at \$1,200).....	2,600
Time clerk.....	1,200

PHILADELPHIA.

Clerk in equipment office.....	\$1,400
Store clerk.....	1,300
Time clerk.....	1,140

WASHINGTON.

Superintendent of the smiths' department.....	2,000
Superintendent of the galley makers' department.....	1,500
Clerk in equipment office.....	1,500
Two store clerks, (one at \$1,400, and one at \$1,200).....	2,600
Time clerk.....	1,140

NEW YORK.

Clerk in equipment store.....	1,500
Two store clerks, (one at \$1,400, and one at \$1,200).....	2,600
Time clerk.....	1,200

NORFOLK.

Clerk in equipment office.....	1,400
Store clerk.....	1,140
Time clerk.....	900

PENSACOLA.

Clerk in equipment office.....	1,300
Store clerk.....	1,200

MARE ISLAND.

Clerk in equipment office.....	1,500
Store clerk.....	1,400
Time clerk.....	1,200

39,760

E. & R. No. 5.

Estimate of the amount required for the contingent expenses of the Bureau of Equipment and Recruiting, for the fiscal year ending June 30, 1871.

For expenses that may accrue for the following purposes, viz: For freight and transportation of stores, &c.; for transportation of enlisted men; for mileage to honorably discharged men; for printing, postage, advertising, telegraphing, and stationery; for apprehension of deserters, assistance to vessels in distress, &c., &c.....	\$150,000
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RECAPITULATION.

For salaries.....	\$18,660
For contingent.....	1,200
	<hr/> 19,860

NAVAL SERVICE.

For equipment of vessels.....	\$2,000,000
For pay of enlisted men.....	3,600,000
For pay of civil officers.....	39,760
For contingent.....	150,000
	<hr/> 5,789,000

BUREAU OF NAVIGATION.

BUREAU OF NAVIGATION,
Navy Department, October 20, 1869.

SIR: I have the honor to submit the following report from the Bureau of Navigation for the past year, together with estimates for its support, and for the expenditures that will probably be required in that division of the naval service committed to its immediate charge, for the fiscal year ending June 30, 1871. Included in this report, and transmitted herewith, are the reports and estimates of the Superintendents of the Naval Observatory and Nautical Almanac, and the report of the officer in charge of the Hydrographic Office.

I. NAVIGATION.

Navigation supplies.—The use of lard oil, alluded to in the previous report from this bureau, has proved to be quite satisfactory for illuminating purposes on board ship. No *sperm oil* has been purchased for two years past; and the conclusion appears to be practically reached, that lard oil may be used with about equal efficiency and facility, and with a considerable saving of first cost. Some experiments are also being made with the use of *olive oil* for the same purpose, this being obtained at still cheaper rates than lard oil, at the prices of the past season; but the results cannot be definitely announced at present.

The manufacture of *bunting* appears to be permanently established in this country. With the encouragement afforded by this bureau and other departments of the government, under the authorization of the act of Congress of March 2, 1865, the American bunting now supplied will compare quite favorably in every requisite with the best English fabric. A useful improvement has lately been effected by the same manufacturer, in the making of boat flags, or the smaller sizes of American ensigns. Instead of being sewed up in parts of each color, as formerly made, requiring considerable labor, and resulting in a more or less clumsy flag, particularly when of small dimensions, they are now furnished to the navy *died in pattern*, so as to require but three pieces in making up. They are thus less costly, neater in appearance, and equally durable in fabric and color, while flying more easily in a light breeze. The reproach that we must go abroad for the material of which the national ensign is made, no longer exists.

The treatment of *compasses* and *chronometers* remains the same as stated in the previous report. The means now taken to examine, test, and adjust these instruments, so important to the navigator, not only serves to insure their serviceable condition when issued to our ships of war, but is tending to elevate the standard of their manufacture in this country. It is already gratifying to know, from the results of experience in their use, that American chronometers, as supplied by our best makers, will compare well in actual service with the best of those obtained from abroad. And a similar opinion may be expressed with respect to American compasses, especially of the most improved form of the *liquid compass* as now made in this country. The increasing testimony for several years past in the quarterly reports from officers afloat, shows that the liquid steering compasses possess adequate sensibility, with the added quality of superior steadiness, and without being any wise deficient in directive power.

Experiments are now being made with liquid *azimuth* compasses of

the same maker on board ship, with a view to ascertain their relative fitness for use at sea, in comparison with the dry azimuth compass still in use in the navy.

Efforts are being directed from time to time towards the improvement of the various nautical instruments and apparatus used in the navy. With unimportant exceptions, and then partly as samples of English and French makers, no instruments or apparatus are now imported, although, prior to the war, nearly all our nautical instruments were purchased abroad.

We are still mainly dependent for our charts, sailing directions, and some other nautical publications, upon foreign importation, mainly from England, nearly all of which being issues from the Hydrographic Office of the British Admiralty, a few, however, being obtained from the French dépôt of charts in Paris. The necessity for doing this in the equipment of our navy is a reproach to our national independence; while it might be attended with serious inconveniences in the event of national complications, not only to the navy itself but to our whole commercial marine. Some progress is being made through the recent establishment of the Hydrographic Office, towards removing this reproach and the danger alluded to; but it will require a number of years to be completely done, unless the operations of that office can be adequately enlarged by additional appropriations.

II. HYDROGRAPHY.

During the past summer a hydrographical survey of a portion of the waters bordering on Alaska Territory has been made by Commander R. W. Meade, jr., United States Navy. With these data, and those derived from previous surveys in Behring's Sea and contiguous waters, by Commander (now Commodore) John Rodgers, United States Navy, in 1855, and some from other sources, a directory and chart of the southeast coast of Alaska has been prepared and published for the use of the navy and commercial marine.

Surveys, more or less limited, have also been made during the past year, as opportunities were presented, by different vessels of the Asiatic squadron; from all of which valuable information of portions of the eastern archipelago has been obtained; relative to which region, much of it is too little known, while all is of rapidly increasing interest to American commerce. Several charts with hydrographic notices embodying the results of these surveys have already been published, and issued from the Hydrographic Office.

In all cases, the data transmitted by naval officers as results of these surveys are made available with the least loss of time, by being published for the use of navigators, either in the production of a new chart or in correcting old ones.

Under your recent order to supply all vessels fitting for sea with the necessary apparatus for hydrographical surveying, it is to be hoped that much more may be done by our national vessels, without interference with other duties, in procuring information for the improvement of navigation. Some additional outlay for hydrographical instruments will be needed in order to properly equip the vessels charged with this duty.

III. NAVAL OBSERVATORY.

The new wooden building for the large transit, for which an appropriation of five thousand dollars was made at the first session of the forty-first Congress, is nearly completed and ready for use.

Some additional apparatus is needed for the meteorological observations, which have so long and regularly been made at the Observatory. The special object in asking for new apparatus is to enable the Observatory to avail itself of the recent improvements in observing, especially in that feature by which the apparatus is made continuously *self-recording*, now so important an addition to the completeness and accuracy of this class of physical observations.

To this recommendation of the superintendent, for which estimates are appended to his report, not being included in the regular estimates of the bureau, your attention is respectfully invited.

It will be seen by the report of the superintendent that much pains were taken to secure widely separated points of observation of the total eclipse of August 7. Not satisfied with sending a corps of observers to Des Moines, Iowa, and Bristol, Tennessee, other observers, with the necessary instruments, were also sent to San Francisco, where, under the authority of the Secretary of the Navy, a vessel of the Pacific fleet was placed at their disposal by Admiral Turner, commanding, for transportation to Behring's Sea. Though but partially successful there, on account of passing clouds, some quite satisfactory results were obtained; while their success on this side of the continent left little to be desired. A full report of results will be submitted as soon as prepared.

IV. NAUTICAL ALMANAC.

Some progress has been made in extending the advance date of the Nautical Almanac. It is quite desirable, for the convenience of navigators, when fitting for long voyages, that almanacs of at least three full years shall be supplied in advance of date. The English almanac is still somewhat in advance of our own publication. It is hoped, however, that, with the regular continuance of the almanac computations, an equal advance may at least be gained and subsequently maintained for the American almanac.

At the last session of Congress an appropriation of five thousand dollars was made for observations of the total eclipse in August of this year. By a judicious distribution of the considerable number of scientific observers, who volunteered from different parts of the country for co-operation with the Superintendent of the Nautical Almanac, aided by unexceptionable weather, results of unusual completeness were obtained which promise to be of great interest, and a substantial acquisition to science. A full report of the results of these observations is preparing for publication.

V. HYDROGRAPHIC OFFICE.

The report of the officer in charge of the Hydrographic Office exhibits the operations of that office during the past year. An increased attention is given to the chart rooms, with a view to maintaining a full supply of all needed charts, as soon as published, whether by this office or by foreign governments, and to keep them, through all accessible means, *corrected to date*.

It will be seen, by reference to that report, that a considerable number of charts, from new and revised plates, have been published during the past year.

As already alluded to under a previous head, it is highly desirable that the operations of this office should be expanded, so far at least as to provide for a steady and more rapid advance towards the complete

emancipation of our naval and commercial marine from the present dependence on foreign sources of supply for their charts and sailing directions. An appropriation of a few thousand dollars, additional to that now made, would probably enable this work to go on as rapidly as would be expedient consistently with the requisite care in revision and in the incorporation of new material.

The estimates for the support of the Hydrographic Office are comprised in the fourteenth specification of the general estimates, No. 2, for *navigation and navigation supplies*.

VI. THE NAVAL SIGNAL SYSTEM.

It being proposed to adopt the army code of signals which was found so useful in communicating between the two branches of the service during the war, for general use, in connection with the present naval signal code, Commodore S. P. Lee was placed in charge of that department, and is now making arrangements with General Myer, chief signal officer of the army, for the proper teaching and organization of a signal corps in the navy, similar to that now so successfully employed in the army. The new signal book is now in the hands of the printer.

VII. NAVAL APPRENTICES.

The utter failure in the object sought, namely, to improve the class of enlisted seamen by "*the introduction of thoroughly drilled and educated apprentices in the navy*," is due, primarily, to the fact that when the result of the annual examination for the admission of ten, out of about five hundred, to the academy, was known, the remainder naturally became dissatisfied and took no further interest in learning the duties of seamen, and deserted in large numbers. While an apprentice system may work well in any of the older countries, overburdened with population, like England and France, the inducements in most of the other walks of life in our own are so great, that the life of a common sailor is generally looked upon as the last to be chosen.

The bureau is of the opinion, in harmony with that expressed by the chief of the Bureau of Equipment and Recruiting, that the law in relation to the enlistment of minors should be more exactly defined, so as to specifically authorize the enlistment of persons over eighteen years of age, and make the oath of the recruit conclusive as to his age.

The following statement exhibits the number of apprentices during the past year:

Number on board apprentice ships September 30, 1868	197
Number on board cruising ships September 30, 1868	271
Total number.....	468
Discharged or deserted since September 30, 1868.....	220
Number on board receiving ship September 30, 1869	10
Number on board cruising ships September 30, 1869	238
Total number now in service.....	248

I am, sir, very respectfully, your obedient servant,

JAMES ALDEN,
Chief of Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

UNITED STATES NAVAL OBSERVATORY,
Washington, September 25, 1869.

COMMODORE: I have the honor to present the following report of the operations of this establishment for the past year, with estimates, also, of the amount required for its support for the fiscal year, ending June 30, 1871.

ASTRONOMICAL WORK.

The equatorial instrument, in charge of Professor Asaph Hall, United States Navy, was employed, as in preceding years, in the observation of asteroids, occultations, comets, &c., until the first of May last, at which time Professor Hall was detailed by the department and ordered to Behring Strait, to observe the total eclipse of the sun of the 7th of August, and the work of the instrument was temporarily suspended. It will be resumed on the return of that officer, now daily looked for.

In view of the comparatively small size of the equatorial telescope, and its inferiority to many of its kind in this country, there is among those acquainted with the wants of the Observatory a strong desire that it might, as an important national establishment, be furnished with the best instruments that can be procured; and, sharing in this desire, I am induced to repeat here the recommendation on the subject in my report of last year.

"At the present time the deficiency of the Observatory, which would be noticed with most surprise, is the absence of a telescope at all comparable with many owned by colleges, observatories, and private individuals throughout the country. This will seem the more remarkable since the most successful living constructor of telescopes is an American—Alvan Clark, of Cambridge, Massachusetts. Mr. Clark has constructed not only nearly all the best instruments lately erected in America, but some of the finest in Europe. It is understood that he has been for some time desirous of receiving an order for the largest refractor in the world; but the great cost—\$40,000 in gold—has hitherto deterred individuals from giving the order. But it seems eminently desirable and proper that the government of the United States should employ at its Observatory such an instrument of the highest power. Considering that any smaller instrument than that proposed would soon be superseded, that several institutions of learning in the country are endeavoring to procure one of this high character, and considering that not more than one such can probably ever be undertaken by Mr. Clark, it will be seen that delay endangers our being able ever to command it. As the construction of the instrument will occupy some four years, it is not necessary that more than one-fourth of the cost should be appropriated in any one year."

Impressed with the conviction that the opportunity thus offered should be availed of by the government, I recommend that Congress be asked to make an appropriation of forty thousand dollars, and the superintendent of the Observatory authorized to contract with Mr. Clark, in that sum, for the finest instrument that eminent artist is capable of producing; the amount so appropriated to be paid in four annual installments, each of ten thousand dollars, (gold.)

Transit circle.—This instrument has been in charge of Professor Simon Newcomb, United States Navy, who has also superintended the erection of the new wing of the Observatory.

In my last annual report, the very grave defects of the observing room, in which this instrument was mounted, were set forth, and an ap-

appropriation of five thousand dollars to build a new one, with a proper foundation for the instrument, was recommended.

The requisite appropriation was made by Congress, and in April last proposals to build the wing were duly advertised for, and work was commenced about the end of May. It is now nearly completed.

The architectural qualities of the new room have not yet been tested, but there is no doubt that for purely astronomical purposes it is the best meridian observing room in the world.

Of the five observers employed with the instrument at the date of my last report, one, Professor Eastman, was transferred to the east wing in January last, another, Professor Harkness, has been disabled from observing by ill health during a large part of the year; and the junior aid had not sufficient experience to make the more difficult observations. Observations have therefore been generally confined to the more necessary ones, namely, those of the sun, moon, larger planets, and fundamental stars.

The work of copying the observations from the note-books for the press has been done by Captain Whiting and Professor Beecher.

In June last the instrument was dismantled to allow its piers to be used in the new wing. The work of remounting it is about to commence.

Certain defects have been found to exist in the object glass of this telescope, which can only be removed by re-grinding, and I have accordingly asked for an appropriation for the purpose.

The transit instrument and the mural circle have continued in charge of Professor M. Yarnall, United States Navy, who was assisted in the work of the former instrument, from the 1st of January until the 1st of July, by Professor J. R. Eastman, United States Navy, and after that time by Mr. Edgar Frisby, "aid."

These instruments were employed in observing stars whose places were wanting either in right ascension or declination, for the general catalogue; and since the dismantling of the transit circle, in observing the moon and such of the planets as came to our meridian.

The observers were engaged with the transit instrument for a few nights in exchanging time signals for difference of longitude between Washington and Des Moines, Iowa, and between Washington and Bristol, Tennessee; the results of which will presently be stated.

Mr. M. H. Doolittle, the senior assistant observer or "aid," has had charge of the mural circle, under direction of Professor Yarnall, and is especially commended for industry by that officer. He was assisted after the first of May by Mr. F. W. Bardwell, "aid."

Professor Yarnall has been engaged, during office hours, in reducing and preparing for the press the transit observations of 1868, which remain only to be copied on sheets, when they will be ready for publication. He has also been engaged in collating and preparing stars for publication in the general catalogue, the epoch of the catalogue (1860) being different from that (1870) to which the current observations are reduced.

The observations to be made with the transit instrument, for the catalogue, are now nearly completed, as far as observing is concerned, but much time will be needed to finish the reduction of the observations and transfer them to the catalogue.

The observations with the mural circle are not so nearly finished, and exclusive attention will be given to that instrument after such observations as remain to be made with the transit instrument shall have been finished.

• *Meteorology.*—Professor Eastman has had the supervision of the meteorological observations made during the year.

The instruments used are a mercurial barometer, dry, wet-bulb, and solar thermometers, rain-gauge, and wind-vane; also a mercurial barometer, by Green, of New York, employed as a *standard*, and two registering thermometers indicating maximum and minimum temperature.

The observations have, as usual, been made every three hours, night and day, by the watchmen, Messrs. Hays, Horigan, and Cahill, under the direction of the officer in charge of the work.

Owing to more pressing duties, only the observations for 1867 have been prepared for the press during the year, which was done with the assistance of Professor Nourse.

I have submitted an estimate for the purchase of certain meteorological instruments, with which it is desirable to furnish the Observatory.

Chronometers.—The labors of the officers on duty in the chronometer department have been unremitting, and when it is considered that all the ships of the navy, going to various parts of the world, are supplied with chronometers from this establishment, the importance of these labors can hardly be overrated.

The system of keeping a complete record of all the chronometers has been continued, and the late increase of officers, so much wanted heretofore, has enabled us to make satisfactory progress in the history of all the chronometers from the earliest period possible.

Commander William N. Jeffers was ordered on duty here in December last, and took charge of the chronometers, relieving Commander A. W. Johnson, who was detached the same month.

The following officers have also been on duty, as assistants in this department: (1868,) Lieutenant Commander J. H. Sands, from 19th September to 31st December; (1869,) Lieutenant Charles J. Train, from 1st January to 30th April; Lieutenant Commander E. J. Dichman, from 1st May, (under orders to Naval Academy, on 1st October;) Commander J. Young, from 15th May; Commander W. C. West, from 22d May; and Lieutenant Commander J. H. Sands, from 28th July.

It is desirable that at least three of the grade of officers who are to be navigation officers at sea, should serve at least one year each at the observatory, to become conversant with the care of chronometers and the requirements of the Observatory, in the correct record of their performance.

In order to increase the knowledge of thermometric laws, and to enable the navigator of each ship to keep an exact record of the temperature of the chronometer-room on shipboard, a registering thermometer, previously carefully compared with the standard, is sent with each issue of chronometers to every ship.

It is a matter of gratification to be able to inform the bureau that the chronometers manufactured in this country are superior, in point of finish and appearance, to the instruments made abroad, and in point of accuracy, our home-made instruments are equal to the best and superior to the ordinary foreign chronometers. For the observation of the time of the solar eclipse, for which the greatest possible accuracy and regularity of rate was required, chronometers were used made by T. S. & J. D. Negus, of New York.

The number of chronometers now on hand in the receiving cases is one hundred and nine, (109,) of which nearly all are ready for immediate issue. They are wound daily at noon, and compared with a standard clock keeping mean time, the error of which is ascertained every five days; and every ten days the error and rate of each chronometer are computed and entered in the rate books; from which the performance

of any chronometer can be obtained at any time. Upon return from sea, each instrument is carefully examined, and, if found defective, is sent to the chronometer-maker for cleaning or repairs.

Every day a time-ball is dropped at the exact moment of mean noon, by means of an electrical connection, giving the exact time to Washington and the surrounding country.

TELEGRAPHIC APPARATUS AND CONNECTIONS.

The electro-magnetic and telegraphic apparatus connected with the Observatory is under the charge of Professor William Harkness, United States Navy, assisted by Mr. W. H. Gardner, the instrument-maker, and has worked well.

There are three lines of telegraph running out of the building. The first line runs to the Navy Department, where it controls a clock, which is made to beat in unison with the marble-case mean time clock of the Observatory, by means of the apparatus invented by Mr. R. L. Jones, of Wolverhampton, England. Correct time is thus furnished to the department, the working of the apparatus continuing in all respects satisfactory.

The second line of telegraph runs to the Washington Fire-alarm Telegraph Office. It puts us in connection with the fire-bells, and is used to furnish correct time to the city by striking them daily at seven a. m., twelve m., and six p. m.

The third line of telegraph belongs to the Western Union Telegraph Company, and is a loop from the wire which they designate as No. 7 south. By means of it are distributed the time signals which serve to regulate the clocks of nearly all the railroads in the southern States. They are sent during the four minutes between 11.57 a. m. and 12.01 p. m. as follows: Daily to the Baltimore and Ohio railroad, Baltimore City, and the other principal cities on their line, as far as New Orleans.

By the kindness of the Western Union Telegraph Company, we have had the free use of their wires to determine the longitude of four points during the past year.

At the request of the Spanish government time signals were, between September 8 and September 21, 1868, exchanged on four nights with Lieutenant C. Pajazon, of the Spanish navy, stationed in the arsenal grounds at Havana, Cuba. These signals place the station

$$0^h \ 21^m \ 12.58^s \pm 0.035^s$$

west of center of dome of this Observatory.

On the night of April 7, 1869, time signals were exchanged with a United States Coast Survey party stationed at Staunton, Virginia.

On five nights, between July 26 and August 7, time signals were exchanged with the observatory party sent to Des Moines to observe the eclipse of August 7. These signals place the station at Des Moines

$$1^h \ 6^m \ 16.05^s \pm 0.05^s$$

west of center of dome of this Observatory.

On three nights, between July 29 and August 7, time signals were exchanged with a United States Coast Survey party, stationed at Bristol, Tennessee, and the result is that their station was

$$0^h \ 20^m \ 32.74^s$$

west of center of dome of this Observatory.

THE TOTAL ECLIPSE OF THE SUN OF AUGUST 7.

Early in spring preparations began to be made here for the observation of the total eclipse of the sun of the 7th of August, an event of rare occurrence, and, from the important results to be derived from accurate observations, exciting among astronomers the liveliest interest.

The first party sent out from the Observatory consisted of Professor Asaph Hall, United States Navy, and Mr. Joseph A. Rogers, of the Hydrographic Office, who were detailed by the department early in May, and ordered to proceed to Behring Strait, to a station there to be selected. The party reached San Francisco in June, and sailed on the last of that month for the strait in the United States steamer Mohican.

Accounts from San Francisco inform us that the expedition arrived at Plover Bay in ample time, and that every preparation was made for the observations, which were only partially successful on account of the obscuration of the sun by clouds during the time of the eclipse. I feared this from the first, but observations at that location were so important as to prompt us to risk the chance of failure.

On the 14th of June the department also detailed Professors Newcomb, Harkness, and Eastman to proceed to Des Moines, Iowa, a point on the line of totality, and select a suitable station for the purpose of observing the eclipse.

Mr. Bardwell, aid, was sent to Bristol, Tennessee, for observations at that point.

Surgeon General Barnes kindly detailed Assistant Surgeon Brevet Major Edward Curtis, of the army, a gentleman skilled in photography, to accompany our Des Moines party. Previous to their departure, a little temporary frame building was erected in the grounds, as a practice observatory for photographing, &c., in which was mounted the equatorial telescope of the Naval Academy, kindly loaned by Vice-Admiral Porter, for observations of the eclipse. Arrived at Des Moines, the party selected stations, set up their instruments, and made all the needful preparations.

The weather on the day of the eclipse was favorable, and the observations were most successfully made.

The officers of the expedition, since their return to the Observatory, have been engaged upon their reports, the preparation of which involves some labor; and it will yet be some days before they are finished. The results will prove highly interesting to the scientific world, and, showing the large share the Observatory has had on this important occasion, will sustain the reputation the institution has already attained.

THE LIBRARY.

The library is in charge of Professor J. E. Nourse, United States Navy. The annual volume of astronomical and meteorological observations for the year 1866, forming a quarto of 472 pages, issued from the government press in May last. The distribution of these volumes was begun on the day of their delivery to the Observatory. Five hundred copies in all were published. The demand for the observations by observatories and other scientific institutions, and by individuals, has left on hand a smaller number than ought justly to be reserved for the future supply of new observatories and institutions. The number of copies has been, therefore, increased for the volume now in press.

The Observatory is again indebted to the kind offices of the resident foreign legations, the Department of State and the Smithsonian Institution, for the safe and prompt delivery of the volumes sent abroad. The calls continue for the separate reports upon the meteoric shower of No-

vember, 1868, the West India cyclone of 1867, and upon the routes for inter-oceanic canals and railroads.

The additions to the library, through its exchanges with other institutions, and with individuals eminent for scientific research, at home and abroad, have been of a very valuable character, and are still steadily increasing in number.

In case of a vacancy in the number of professors attached to the Observatory, the law of April 17, 1866, prohibiting the further appointment of professors of mathematics in the navy, would cripple the Observatory to supply his place without further legislation.

I would suggest some modification of the law in regard to the professors at the Observatory, who are the astronomers and observers; and further to provide an increase of pay for every five years of service at this institution, in that capacity, as compensation for faithful and efficient service, and to hold out some inducement or promotion to retain an efficient corps of astronomers.

In speaking of the work of the Observatory, I must not omit to commend the three assistant observers or "aids," allowed by law to the Observatory, for their zeal, intelligence, and industry, in performing all the duties assigned them. These gentlemen, before being appointed, were required to undergo a strict examination as to mathematical attainments and knowledge of general science, and to prove their fitness for appointment by a high standard. They are frequently required to perform the duties of observer as well as computer, the more experienced observing on alternate nights with the professors. Considering, therefore, the value of their services, I earnestly recommend a small increase of the pay of the three assistant observers or "aids." They now receive at the rate of \$1,333 33 each, per annum; (\$4,000 for the three.)

I recommend that their pay be graduated or classified as follows:

First aid or assistant observer.....	\$1,600 per annum.
Second aid or assistant observer.....	1,500 per annum.
Third aid or assistant observer.....	1,400 per annum.

The rewarding of meritorious service, wherever and by whomsoever performed, is a just principle, always recognized and observed by our government when a proper occasion for its exercise is presented. I believe the recommendation above affords such an occasion, and I hope it will meet with favor.

Very respectfully, your obedient servant,

B. F. SANDS,
Commodore, Superintendent.

Commodore JAMES ALDEN, U. S. N.,
Chief of Bureau of Navigation, Navy Department.

Special recommendation for the purchase of registering meteorological instruments, and the erection of a tower for mounting them, and for the purchase of a mean-time clock.

For 1 barometer.....	\$300
For 1 thermometer.....	300
For 1 anemometer, with registering apparatus.....	125
For 1 wind-vane.....	75
For the erection of tower.....	3,200
For 1 mean-time clock.....	400
	<hr/>
	4,400

Respectfully submitted.

B. F. SANDS,
Commodore, Superintendent.

NAUTICAL ALMANAC OFFICE,
Washington, D. C., September 22, 1869.

SIR: I have the honor to submit the following report of the work of this office during the past year, together with estimates for the fiscal year ending June 30, 1871:

The chief work to be done and the methods by which it is accomplished, and the principal duties of the office, continue substantially the same from year to year.

The small almanac for 1871, prepared for the use of navigators, was printed and ready for distribution in February last; and the complete ephemeris for the same year in August.

Nearly all the ephemeris for 1872 is completed, and in the hands of the printer; the small almanac for that year will be out before December.

The ephemeris of the sun and part of that of the moon, for 1873, are completed, and considerable progress has been made in other portions of the volume for that year. But the reduction of the appropriation for the last fiscal year has delayed the work, so that the desired advance has not been accomplished.

The tables for facilitating the reduction of places of the fixed stars, which have been used in manuscript for several years, have been completed and printed, and will afford valuable aid to astronomers in future work.

Two supplements to the ephemeris of 1869, giving respectively tables and formulæ for predicting the times and phases of the solar eclipse, on August 7, for any place, and suggestions for observing the eclipse, have also been published; also, a supplement to the ephemeris for 1870, containing tables of occultations of stars by the moon which are visible in the territory west of the Mississippi River.

This office contributes the ephemeris of eight only of the one hundred and eight small planets which have been discovered between the orbits of Mars and Jupiter. It is very desirable that American astronomers should provide for a much larger number of them.

The work of revising the elements and the tables of the four larger planets, proposed and commenced by Professor Peirce, has made some progress under the supervision of Professor Winlock, formerly superintendent of this office, and the first stage completed. It is hoped that more may be accomplished during the present fiscal year, although only a part of the time of two assistants can be devoted to this work.

The revision of the tables of the moon, becoming each year more necessary to the accuracy of a large part of the ephemeris, continues suspended. A special appropriation of \$5,000 a year would be needed to undertake it with any reasonable prospect of completion.

Nearly six thousand copies, chiefly of the small ephemeris, have been sold during the year, indicating an increasing demand for the work. The large ephemeris is supplied to the ships and stations of the navy, and distributed to observatories, astronomers, and to colleges and other institutions whose professors are engaged in astronomical work.

The total eclipse of the sun, on the 7th of August, was a phenomenon of special interest, attracting the attention not only of astronomers, but the cultivators of other branches of science. The appropriation for observations of this eclipse, aided by the great liberality of the trustees of the Pennsylvania College, at Gettysburg, the Philadelphia Central High School, and the University of Pennsylvania, at Philadelphia, in granting the use of their valuable telescopes; and of the Pennsylvania Central, the Pittsburg, Fort Wayne and Chicago, the Chicago, Burlington and Quincy, and the Burlington and Missouri railways, in granting free

transportation for observers, assistants, and instruments, enabled me to provide for observations at Burlington, Mt. Pleasant, and Ottumwa, Iowa, near the central line, and at Kewanee, Illinois, and Monroe, Missouri, near the limits of shadow.

The weather at all these stations was remarkably and unexpectedly fine, and the operations of the several parties eminently successful. These will constitute the subject of a special report.

The rich materials contributed, especially in photography, by the parties organized by Professor Henry Morton, of Philadelphia; in spectral analysis, by Professor C. A. Young, of Dartmouth College; and in general observations and notes and descriptions of the corona, by Dr. B. A. Gould, well deserve publication commensurate with their value.

I am, very respectfully, your obedient servant,

J. H. C. COFFIN,

*Professor Mathematics United States Navy,
Superintendent of Nautical Almanac.*

Commodore JAMES ALDEN, U. S. N.,
Chief of Bureau of Navigation.

HYDROGRAPHIC OFFICE,

Washington, D. C., October 9, 1869.

SIR: I have the honor to submit to the bureau the following report of the operations of this office during the past year:

CHART ROOMS.

The activity of foreign governments, especially of the British government, in the work of surveys, has rendered necessary the importation of a large number of British admiralty charts, in order that the charts supplied to our government vessels should be up to date. A careful inventory of the charts in the British admiralty chart-room has been taken, and their dates compared with the latest catalogue; wherever a chart of later date has been required, it has been ordered from the admiralty publisher, and our government vessels will thus have the benefit of the latest foreign publications.

The British admiralty chart-room being thus supplied with the latest publications, it has been the effort to suppress the issue to navy vessels of all French charts which are covered by English publications, and by this means it is expected to reduce the number of charts now issued to each vessel, without impairing the practical value of her supply.

The additional force of officers allowed during the past year to this office has permitted this work to progress rapidly, and it is believed that in the course of two months the shelves in the British admiralty chart-room will be fully supplied with the latest publications.

The work of keeping the charts on hand corrected to date will require the constant attention of assistants, and I recommend that the officers assigned to this duty should not be changed more frequently than may be rendered necessary by the exigencies of the service.

In addition to the work in the chart-rooms, already mentioned, the work of disposing of the charts that were used during the rebellion has been accomplished; the boxes containing these charts had accumulated in large numbers, but have all been unpacked and the charts properly disposed of.

HYDROGRAPHIC NOTICES.

These notices are published at the time of the discovery of new rocks or shoals, and as guides for the navigation of localities which are imperfectly known. Several notices have originated from this office during the past year. Those published by foreign governments have been communicated to this office and republished. As the information is received it is entered on the charts to which it applies, and is communicated to our squadrons abroad, and to all prominent dealers in the country, to the Chambers of Commerce, and to others interested in nautical matters.

The number of notices of this description that have been issued from this office during this year (original and re-published) is twenty-seven.

NOTICES TO MARINERS.

These notices, subject to the same system of exchange with foreign governments as the hydrographic notices, refer especially to changes made in lights and buoys, and are utilized in the same manner as the hydrographic notices, by being entered on the charts. These notices from abroad are republished by the Light-house Board, and this office is supplied with copies, which are distributed in the same manner as are the hydrographic notices.

By means of the hydrographic notices and notices to mariners, the charts are kept up to date during the year, and if on the issue of the new year catalogue it is found that the corrections have been so extensive as to cause a new chart to be issued, it is imported and substituted for the old one.

PUBLICATIONS OF CHARTS.

During the past year the work of correcting the plates purchased by the Navy Department from Messrs. E. & G. W. Blunt has been pushed forward rapidly. The charts formerly issued by this firm were in very general use by our merchant marine, and their transfer to the government carried with it the responsibility of their issue to this important class of navigators. Before issuing them, however, with the authority of a government publication, it was found necessary to correct them; this work has been pushed forward with great vigor, and I am happy to report that, with the exception of three sheets of the West Indies series, they are all ready for issue.

These publications, together with all original publications of the office, are sold to dealers at the rate prescribed by Congress, namely, the price of paper and printing, and thus these valuable charts are placed in the hands of the masters of our merchant vessels at a very small expense to them.

The following list of charts indicates the work done during the past year in this division of the duties of this office.

Republications corrected to latest dates.

- No. 16. East Coast of North^{*} America, sheet 1. Cape Canso to Shagrock Point, with plan of Halifax Harbor.
- No. 17. East Coast of North America, sheet 2. Shagrock Point to Penobscot Bay, with plan of Rockport Harbor.
- No. 19. Bahama Banks and Gulf of Florida, sheet 1, eastern part.
- No. 22. North Atlantic Ocean, sheet 2, eastern part.

- No. 20. Bahama Banks and Gulf of Florida, sheet 2, western part.
- No. 31. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 1.—
Crooked Island and Mariguana Passages; Caicos and Silver
Banks, with plans of approaches to Cardenas, and anchorage
of Cay Frances.
- No. 21. North Atlantic Ocean, sheet 1, western part.
- No. 41. Northeast Coast of South America, from the Orinoco River to
San Joao Island.
- No. 23. South Pacific Ocean, sheet 1, eastern part, and South Atlantic
Ocean, sheet 1, western part.
- No. 33. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 3. Gulf
of Mexico, west coast from Sabine Pass to Mt. Gordo.
- No. 29. Coast of Brazil, sheet 2. Pernambuco to Bay of Espiritu
Santo.
- No. 24. South Atlantic Ocean, sheet 2, eastern part.
- No. 42. Indian Ocean, sheet 1, eastern part.
- No. 32. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 2. Ba-
hama Banks, Gulf Coast of the United States to Sabine
Pass, with Cuba and north part of Yucatan.
- No. 30. Coast of Brazil, sheet 3. Bay of Espiritu Santo to entrance of
the Rio de la Plata.
- No. 43. Indian Ocean, sheet 2, western part.
- No. 28. Coast of Brazil, sheet 1. San Joao Island to Pernambuco.
- No. 26. Great Bahama Bank from Great Isaac to 23° 40' north lati-
tude.

New publications.

- No. 221. The Sandwich Islands, with islands and reefs to the west-
ward. By Captain William Reynolds, commanding United
States steamer Lackawanna.
- No. 222. Harbor of Topolobampo, Sinaloa, Mexico. By Commander W.
T. Truxtun, commanding United States ship Jamestown.
- No. 224. Ping Yang Inlet, Korea. By Commander J. C. Febiger, com-
manding United States steamer Shenandoah.
- No. 28. Harbor of Ceira, Brazil. By Commander E. Simpson, com-
manding United States steamer Mohican.
- No. 225. Southeast Coast of Alaska, Alexander Archipelago. British
Admiralty Chart No. 2431, Cordova Bay to Cross Sound;
corrected from surveys by Commander R. W. Meade, jr.,
commanding United States steamer Saginaw.

In the engraver's hands.

- No. 226. Approaches to Ta-Tong River. By Commander R. W. Shu-
feldt, commanding United States steamer Wachusett.
- No. 227. Hiogo, Gulf of Osaka, and Akasi Straits, from British Admi-
ralty chart, with additional surveys, by Commander S. P.
Carter, commanding United States steamer Monocacy.
- No. 36. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 6. San
Domingo, Windward Islands, and Spanish Main.

Preparing for publication.

- No. 34. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 4.
Coast of Vera Cruz and Tabasco, with plans of Anton Lezaido,
Aguedilla, Port of Vera Cruz, and Harbor of Jacquemel, with
views.

No. 35. Gulf of Mexico, West Indies, and Caribbean Sea, sheet 5. Bay of Honduras to Cartagena, Jamaica, Pedro Bank, and south side of Cuba, with plans of Limon Bay, Harbor of Port-au-Prince, and Puerto de Guanica.

NAUTICAL BOOKS.

During the past year the following bureau publications have been issued through this office :

Rule of the Road at Sea.

Barometer, Thermometer, Hygrometer, as Weather Guides.

Ship's Compasses, including the subjects of Binnacles and Swinging Ship.

Alaska Directory.

These books are compilations from various sources, and are issued in a form that will prove useful and instructive to navigators. They are distributed to the navy, and are supplied to dealers at a price approximating to that of paper and printing.

INSTRUMENTS.

The work of repairing compasses, sextants, octants, and spy-glasses, has progressed as rapidly as could be expected with the small force that is employed. The force is sufficient for the current work of the navy, but the accumulation of damaged instruments, returned to this office after the rebellion, is so great as to compel me to recommend that more force should be employed in this division of the office work.

CONCLUSION.

Form-books for surveyors have been prepared at this office, and are now ready for issue to the navy; and, in concluding this report, I respectfully ask the attention of the bureau to the necessity of making surveys abroad. Some good work has been done by the present Asiatic squadron on the unknown coast of Korea, and we have the satisfaction of seeing the names of the Shenandoah and Wachusett as pioneers on this virgin coast; but much information is wanted on the subjects of reported dangers in the Pacific Ocean, even in the track of vessels bound to our own coast. The increasing interests of the United States in this region render it a national duty to subject these waters to a thorough exploration.

Very respectfully, your obedient servant,

E. SIMPSON,

Commander U. S. Navy, in charge of Hydrographic Office.

Commodore JAMES ALDEN,

Chief of Bureau of Navigation and Office of Detail.

NAVIGATION—A.

List of papers composing the estimates for the fiscal year ending June 30, 1871.

FOR THE BUREAU.

Navigation B.—Estimate for the support of the bureau.

FOR THE NAVAL SERVICE.

Navigation No. 1.—Estimate for the pay of commissioned and warrant officers of the navy, and for mileage and transportation of the same.

Navigation No. 2.—Estimate for navigation and navigation supplies.

Navigation No. 3.—Estimate for the support of the Naval Observatory.

Navigation No. 4.—Estimate for the support of the Nautical Almanac.

Navigation No. 5.—Summary of estimates from the Bureau of Navigation.

Navigation No. 6.—Recapitulation of appropriations under the cognizance of the Bureau of Navigation.

NAVIGATION—B.

Estimate of the amount required for the support of the Bureau of Navigation for the fiscal year ending June 30, 1871.

For salary of chief of bureau, per act of July 5, 1862, section 2.....	\$3,500 00
For salary of chief clerk, per act of July 5, 1862, section 3.....	1,800 00
For salary of one clerk, (fourth class,) per act of July 23, 1866, section 8...	1,800 00
For salary of clerk, (second class,) per act of July 23, 1866, section 8.....	1,400 00
For salary of messenger, per act of July 5, 1862, and proviso of March 3, 1869	840 00
For salary of laborer, per act of February 25, 1863, and proviso of March 3, 1869	720 00
	10,060 00
For amount submitted as increase to salary of chief clerk.....	400 00
For contingent expenses.....	800 00
Total	11,260 00

NAVIGATION—No. 1.

Estimate of the amount required, under the head of pay of the navy, for the pay of commissioned and warrant officers, at sea, on shore on special service, and of those on the retired list and unemployed, and for mileage or transportation of officers traveling under orders, for the fiscal year ending June 30, 1871.....\$5,000,000 00

NAVIGATION—No. 2.

Estimate of the amount required for navigation and navigation supplies, and for purposes incidental to navigation, for the fiscal year ending June 30, 1871.

1. For pay of writers and laborers, and for purposes incidental to the support of the civil establishment under this bureau at the several navy yards.....	\$20,000 00
2. For foreign and local pilotage and towage of ships of war.....	50,000 00
3. For services and material in correcting compasses on board ships, and for adjusting and testing compasses on shore.....	5,000 00
4. For nautical and astronomical instruments, for nautical books, maps, and charts, and sailing directions, and for repairs of nautical instruments for ships of war.....	10,000 00
5. For books for libraries of ships of war.....	3,000 00
6. For navy signals and apparatus, namely, signal lights, lanterns, and sockets, including running lights, and for drawings and engravings for signal books.....	8,000 00
7. For compass fittings, including binnacles, pedestals, tripods, and other appendages of ship's compasses, to be made in the yards.....	8,000 00
8. For logs and other appliances for measuring the ship's way, and for leads and for other appliances for sounding.....	3,000 00
9. For lanterns and lamps and their appendages for general use on board ship, including those for the cabin, ward-room, and steerage, and for the hold and spirit-room, for decks and quartermaster's use.....	6,000 00
10. For bunting and other material for flags, and for making and repairing flags of all kinds.....	5,000 00

11. For oil for ships of war, other than that used in the engineer department; for candles, when used as a substitute for oil in running lights; for chimneys and wicks; and for soap used in navigation department....	\$15,000 00
12. For commanders' and navigators' stationery for vessels of war.....	5,000 00
13. For musical instruments and music for vessels of war.....	1,500 00
14. For preparing and publishing maps, charts, nautical books, and other hydrographic information, as per act approved June 21, 1866.....	20,000 00
15. For steering signals and indicators, and for speaking tubes and gongs, for signal communication on board ships of war.....	5,000 00
16. For freight and transportation of navigation material, instruments, books, and stores, postage and telegraphing on public business, advertising for proposals, packing boxes and material, blank books, forms, and stationery at navigation offices.....	8,000 00
	<u>202,500 00</u>

Estimate of the amount required for the pay of the civil officers on duty at the United States Naval Observatory for the fiscal year ending June 30, 1871, chargeable to the appropriation for the support of the Naval Observatory.

SALARIES.

For salary of the clerk, per act of March 3, 1855, (Statutes at Large, vol. 10, chap. 175, sec. 10, page 670).....	\$1,500 00
For salary of the three aids or assistant observers, per act of May 21, 1864, (Statutes at Large, vol. 13, chap. 93, sec. 1, page 84).....	4,000 00
Total	<u>5,500 00</u>
Appropriated for year ending June 30, 1870.....	<u>\$5,500 00</u>

Estimate of the amount required for the pay of the instrument-maker, watchmen, and others, and for all contingent expenses of the United States Naval Observatory, for the fiscal year ending June 30, 1871.

For the wages of one instrument-maker, three watchmen, one messenger, and one porter; for keeping grounds in order, and for repairs of buildings; for fuel, light, and office furniture; purchase of books for library; for lithographing, chemicals for batteries, stationery, postage, freight, and all other contingent expenses	\$13,500 00
For regrinding object-glass of great transit circle	800 00
Estimated for year ending June 30, 1871	14,300 00
Appropriated for year ending June 30, 1870.....	<u>13,500 00</u>
Increase, (for regrinding object-glass)	<u>800 00</u>

RECAPITULATION.

Appropriation—Naval Observatory:

For pay of clerk and three assistant observers or aids	\$5,500 00
For pay of instrument-maker, watchmen, and others, and contingent.....	14,300 00
Total	<u>19,800 00</u>
Appropriated for year ending June 30, 1870.....	19,000 00
Estimated for year ending June 30, 1871.....	<u>19,800 00</u>

Respectfully submitted.

B. F. SANDS,
Commodore, Superintendent.

Estimates of the amount required for preparing for publication the American Ephemeris and Nautical Almanac during the fiscal year ending June 30, 1871.

For pay of computers and clerk	\$18,500 00
For office expenses, viz: rent, fuel, labor, stationery, boxes, expresses, &c.	1,500 00
	<u>20,000 00</u>
Appropriated for the year ending June 30, 1870	<u>\$21,500 00</u>

Respectfully submitted.

J. H. C. COFFIN,

Prof. of Mathematics U. S. Navy, Superintendent Nautical Almanac.

Commodore JAMES ALDEN, U. S. N.,

Chief of Bureau of Navigation, Navy Department.

NAVIGATION—No. 5.

Summary of estimates from the Bureau of Navigation for the fiscal year ending June 30, 1871

FOR SUPPORT OF BUREAU.

Salaries and contingent, (Navigation B)	<u>\$11,260 00</u>
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FOR THE NAVAL SERVICE.

1. For pay of commissioned and warrant officers, and for mileage and transportation of same, (Navigation No. 1)	\$5,000,000 00
2. For navigation and navigation supplies, (Navigation No. 2)	202,500 00
3. For support of Naval Observatory, pay of civil officers, &c., (Navigation No. 3,) \$5,500; wages and incidentals, (Navigation No. 3,) \$14,300 00	19,800 00
4. For preparing and publishing the Nautical Almanac, pay of computers, &c., (Navigation No. 4)	<u>20,000 00</u>

NAVIGATION—No. 6.

Recapitulation of appropriations under the cognizance of Bureau of Navigation.

Titles of appropriations.	Appropriations estimated for the services of the fiscal year ending June 30, 1871.	Appropriations made for the fiscal year ending June 30, 1870.
Pay of the navy, (officers)	\$5,000,000	(¹)
Navigation	202,500	\$174,300
Naval Observatory	19,800	24,000 ²
Nautical Almanac	20,000	26,500 ³

¹ The estimate was \$5,009,727.

² Including \$5,000 for a new transit building.

³ Including \$5,000 for eclipse observations.

BUREAU OF ORDNANCE.

BUREAU OF ORDNANCE,
Navy Department, October 23, 1869.

SIR: I have the honor to submit the annual report of the Bureau of Ordnance, together with its estimates for the fiscal year ending June 30, 1871.

The expenditures during the current year have been confined to the ordinary requirements of the service, in preparing the batteries of ships ordered to sea, and in the repairs and preservation of the stock of materials and buildings at the navy yards and stations.

Under authority of the department my predecessor directed a board of survey upon all cannon and ordnance stores at the northern navy yards, which had deteriorated to such an extent as to be no longer serviceable, with the view of disposing of them at public sale.

This duty has been most thoroughly performed during the summer, and a lot of old material has thus been disposed of at New York, amounting in the aggregate to thirty thousand five hundred dollars, (\$30,500.) The condemned stock at the other yards will be sold in like manner, and the proceeds deposited in the treasury to the credit of navy ordnance according to law.

At present the bureau has but one existing contract, viz, for two thousand (2,000) barrels of cannon powder, made necessary by the depletion of the magazines in supplying vessels ordered to sea during the spring and summer.

No cannon of any description are being made for the navy, there being a stock of all calibers on hand sufficient to supply immediate wants, excepting 15-inch, and in the estimates submitted I have inserted an item for thirty (30) guns of that calibre.

The manufacture of howitzers of 430 pounds has been found necessary to arm the boats now built for the navy, which are too sharp to afford buoyancy enough to carry the heavy guns of 750 pounds. These latter, however, can easily be carried by the launches of large ships.

Some modification of the iron broadside carriages has recently been made, which the bureau believes will overcome all the objections which have been urged against them; and these modifications will be applied to all the carriages in service as rapidly as possible. Pivot carriages of iron for the 11-inch guns will also be added in the armament of ships—two of this class being now under construction at the Washington navy yard for the Nipsic and Kansas.

I beg to call the attention of the department to the item in the estimates submitted for a new nitre depot, which I have briefly explained in the appended remarks. The files of the bureau afford abundant information to enable the department to decide intelligently upon this subject, which is of vast importance to the country, and deserves the serious consideration and favorable action of Congress.

I also respectfully refer the department to the question of additional magazines for the navy, to be located in the interior of the country away from the neighborhood of large cities or towns, but adjacent to railways or water communication with our principal stations. This subject has already been presented to Congress, and an official report made to the Senate by a commission duly appointed by act of Congress. It is, however, respectfully suggested that the attention of the naval committees be again called to this important matter, in order that some action may be taken at an early day. The data necessary to enable the

bureau to act promptly is already collected, so far as the details of construction and equipment of the magazines is concerned.

The board on breech-loading muskets for the navy, which was organized by my predecessor under authority of the department, has nearly completed its labors and will shortly make its report to the bureau.

The board has not confined its trials to any particular kind of arm or style of breech-loading, but has carefully and systematically examined all systems that have been presented. It is believed that good results will be obtained from this investigation, and I shall take pleasure in submitting the report to the department as soon as it is received from the board. I have also included in the estimates a small item for experimental purposes, which I trust Congress will allow. The interests of the country demand that every new improvement in ordnance should be carefully investigated in order that we may keep pace with other nations in the preparation for battle. To neglect so manifest a duty will be fatal in an emergency, and this may arise when least expected and without affording time or means for preparation.

The order of the department directing the preliminary arrangements to be made for the establishment of a torpedo corps has been obeyed to the extent of occupying Goat Island, in the harbor of Newport, Rhode Island, and erecting thereon temporary structures for magazines and workshops.

The sum asked for the further extension of the contemplated system has been carefully computed by the officer assigned by the department as the head of the corps, and, in the judgment of the bureau, is needed for the very important objects to be attained.

That the torpedo is destined to be used by all nations in future wars is certain; and this not only for special work in guarding rivers and harbors, but also in the active operations of battle on the high seas. It is therefore our duty to keep pace with other maritime powers in everything relating to the development and use of this dangerous and destructive element of warfare.

In conclusion, I beg leave to draw the attention of the department to the estimates for the support of the bureau.

Congress, in making appropriations for the present fiscal year, refused to provide for more than one clerk (at \$1,400 per annum) besides the chief clerk. The result has been of serious detriment to the public service, from the physical inability of two clerks to perform the duties of an office embracing—

1. Correspondence and business with the department and its various bureaus.

2. With all the navy yards and stations.

3. With all the squadrons and single ships.

4. The details of ordnance equipment generally.

5. Miscellaneous correspondence and business with the public.

6. The adjustment and settlement of accounts; and, finally, the filing, recording, registering, indexing, and general preservation of all papers and documents resulting from the above brief summary of duties.

The result is most embarrassing and unsatisfactory, and it is with extreme difficulty and labor that even the current work is kept under control. I earnestly recommend, therefore, this particular item of the estimates to the favorable consideration of the department; and also suggest that authority be asked to employ, from time to time, additional temporary assistance in the office as the public interest may require.

I have asked for four clerks, besides the chief clerk, as hitherto provided by law. It would, however, be highly beneficial to the public

interests and enable the bureau to perform its duties more satisfactorily if Congress can be induced to authorize at once the re-employment of the number of clerks hitherto employed in the bureau.

I have the honor to be, with high respect, your obedient servant,
A. LUDLOW CASE,
Chief of Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

Summary of appropriations estimated for by the Bureau of Ordnance, Navy Department, and required for the fiscal year ending June 30, 1871, with the amounts appropriated for the year ending June 30, 1870.

Objects.	Required for year ending June 30, 1871.	Appropriated for year ending June 30, 1870.
For support of the bureau, (A)	\$16, 636	\$7, 440
For ordnance, &c., (B)	1, 015, 269	250, 000
For ordnance, &c., (C)	103, 793	
For civil establishment at navy yards, (D).....	15, 000	15, 000
For contingent, (E).....	1, 000	1, 000
Total	1, 151, 698	273, 440

A. LUDLOW CASE,
Chief of Bureau.

BUREAU OF ORDNANCE, October 12, 1869.

A.

Estimate of the amount required for the support of the Bureau of Ordnance for the fiscal year ending June 30, 1871.

For salary of Chief of Bureau, per act of July 5, 1862, section 2	\$3,500
For salary of chief clerk, per act of July 23, 1866, section 8.....	1,800
For salary of one fourth-class clerk, per act of July 23, 1866, section 8.....	1,800
For salary of one third-class clerk, per act of July 23, 1866, section 8.....	1,600
For salaries of two second-class clerks, per act of July 23, 1866, section 8.....	2,800
For salary of draughtsman, per act of March 2, 1867	1,800
For salary of messenger, per act of July 5, 1862, section 3	840
For salaries of two laborers, per acts of July 5, 1862, and July 23, 1866, section 7	1,296
	15,436
Appropriated for the fiscal year ending June 30, 1870.....	\$6,640

CONTINGENT EXPENSES.

For stationery and miscellaneous items.....	\$800
Appropriated for fiscal year ending June 30, 1870	800
For amount respectfully submitted as increase to salary of chief clerk	400

Six clerks have been employed in this bureau up to the commencement of the present fiscal year, when, owing to the reduced appropriations, the services of four of that number had to be dispensed with. This reduction is found to be too great to enable the bureau to keep up its current work; and the number here asked for, though less than previously employed, is actually required for a proper performance of the clerical work of the bureau.

The above will explain the discrepancy between this estimate and the appropriation of last year, together with the fact that the salary of Chief of Bureau is here included, while it was omitted last year.

BUREAU OF ORDNANCE, October 12, 1869.

B.

Estimate of the amounts that will be required for ordnance and ordnance stores, for the pay of labor, and for contingent expenses, for the year ending June 30, 1871.

1. For thirty 15-inch guns	\$210,000
2. For new nitre depot	75,000
3. For 500,000 pounds nitre	55,000
4. For 5,000 barrels gunpowder	100,000
5. For fuel and materials necessary in carrying on the mechanical branches of the Ordnance Department at the navy yards and stations	115,767
6. For labor at navy yards	399,705
7. For repairs to ordnance buildings, magazines, gun parks, machinery, boats, &c.	20,880
8. Miscellaneous—freight, &c.	28,917
9. For experiments in ordnance	10,000
	<hr/>
	1,015,269
Appropriated for year ending June 30, 1870	<hr/>
	\$250,000

REMARKS ON ESTIMATE B.

Item 1.—Thirty 15-inch guns are needed for the battery of the Colossus, and to meet contingencies.

Item 2.—My predecessor in office, in obedience to an order from the Navy Department, dated May 11, 1869, had prepared the following report in regard to the advisability of preparing another building for the storage of nitre, to meet contingencies which may arise in future, which seems to cover the subject fully:

Extract.—"The war of the rebellion disclosed the great liability to which the Union interest was exposed by relying upon the usual supply of nitre from Hindostan.

"In the first place, the supply was limited to the ordinary consumption, was unequal to the great increase in demand when war arose, and the price was not only augmented, but it was difficult to obtain what was needed in convenient season.

"Under these circumstances, I thought of obtaining nitre from other sources, and initiated the present mode of supply—that is, by separating the nitre combined with soda and uniting it with potash, which was successfully executed.

"A depot was subsequently provided near Malden, and there are now stored there 3,659 tons.

"It seems advisable to make further provision to complete the plan, for which purpose another depot should be provided, as the present one contains quite as much as it is advisable to accumulate in one place; chiefly because, when the whole stock is brought together, accident or design would dissipate it in an instant, and leave us unprovided. The convenience of communicating with the different powder works is also to be considered.

"I recommend, therefore, that a site for another depot be chosen in the interior of the middle States, and convenient of access by railroad and canal."

In regard to the character of the building, I am of the opinion that one similar but larger than that lately completed by the Light-house Board at the light-house depot, Tompkinsville, Staten Island, for the storage of oil, will be most suitable, and just what is wanted, as it is thoroughly protected from fire. A plan of it is on file in this bureau. The cost of the site, vault, and buildings for the persons in charge of the depot, I estimate will be \$75,000.

Item 3.—Is explained in the preceding article relating to the advisability of building another nitre depot.

Item 4.—The magazines are quite depleted, and the amount of powder estimated for (5,000 barrels) is considered necessary to meet the current demands of the service and the gradual refilling of the magazines.

Items 5, 6, 7, and 8.—These amounts are less than asked for by the navy yards in their several estimates, and are exceeded by the current expenditures for the objects named. They are the lowest estimates that can be safely made.

BUREAU OF ORDNANCE, October 12, 1869.

C.

Estimate of the amount that will be required for the expenses of the torpedo corps for the year ending June 30, 1871.

For the purchase and manufacture of gunpowder, nitro-glycerine, gun-cotton, &c	\$23,000
For the purchase and manufacture of electrical machines, galvanic batteries, wire, &c	12,000
For the purchase of copper, wood, iron, and other materials used in the manufacture of torpedoes, with work on the same	20,000
For the construction of torpedo boats, purchase of coffer work or hulks, and contingent expenses	35,000
For labor—including one chemist, at \$2,000; one foreman machinist, at \$1,565; and two clerks, \$1,700	13,793
	<u>103,793</u>

REMARKS ON ESTIMATE C.

This is a new estimate. The closing operations of the war for the Union developed the usefulness of torpedoes for either attack or defense, and as this has not only become apparent to ourselves, but to foreign governments, who are offering large premiums for the invention of effective and manageable torpedoes, it has been deemed not only advisable, but necessary, that we should take measures to improve upon the knowledge already gained; and to that end the nucleus of a torpedo corps has been established, and experiments with torpedoes used by the rebels and ourselves, and some others which have lately been designed, will soon be commenced.

To fully establish the machinery, with suitable facilities for the manufacture of and experimenting with torpedoes, an appropriation of \$103,793 is deemed necessary.

BUREAU OF ORDNANCE, October 12, 1869.

D.

Estimate of the amount that will be required for the support of the civil establishment at navy yards, under the Bureau of Ordnance, for the fiscal year ending June 30, 1871.

For pay of superintendents and the civil establishment at the several navy yards	\$15,000
Appropriated for the year ending June 30, 1870	<u>\$15,000</u>

This estimate is the same as made and appropriated last year, and limits the bureau to a very small force for the performance of the clerical work in the ordnance department of the navy yards.

BUREAU OF ORDNANCE, October 12, 1869.

E.

Estimate of the amount required for contingent expenses of the ordnance service of the navy for the year ending June 30, 1871.

For contingent expenses	\$1,000
Appropriated for the year ending June 30, 1871	<u>\$1,000</u>

BUREAU OF ORDNANCE, October 12, 1869.

BUREAU OF YARDS AND DOCKS.

NAVY DEPARTMENT, BUREAU OF YARDS AND DOCKS,
Washington, D. C., October 1, 1869.

SIR: In obedience to your order of the 2d instant, I have the honor to submit the annual report of operations at the several navy yards during the fiscal year ending 30th June, 1869, and coming under the cognizance of this bureau, together with estimates for improvements, repairs, &c., for the fiscal year ending 30th June, 1871.

The report of the board of naval officers of high rank, assigned by the department to the duty of examining and reporting upon our navy yards and to recommend improvements, has not yet reached me. The subject is one requiring great consideration, and the report, when received, will be of great value as an embodiment of a well-digested and sufficient plan for the improvement of our navy yards, which are now so inadequate to meet the necessities that a war may at any time impose upon us.

No appropriations have been made by Congress for the improvement of the navy yards during the past three years, and but comparatively small amounts for the preservation and repairs of the large amount of property contained in them. As a consequence, the operations upon many important works of improvement have been suspended and they have sustained the usual injury, and yet remain incomplete.

The insufficiency of our navy yards was painfully obvious during the late rebellion, when, in contending with an enemy almost without a navy, the department was yet obliged to call to its aid the services of almost every ship-yard and machine-shop of any magnitude in the country. Of the present improved navy yards, none, except Mare Island, are of sufficient area to meet what will be required in the event of a war, even with an inferior power, and, with the exception of the Norfolk yard, none of them are so situated as to be susceptible of the requisite enlargement, without incurring enormous expense.

The purchase of Seavey's Island, at Portsmouth, New Hampshire, has made an addition to the area of that yard which will probably afford all the space required for improvements at that station, but large appropriations must be obtained before the necessary buildings, docks, &c., can be completed.

The Boston yard is insufficient in area for that important station, and the exigencies arising from so thorough a change in the construction and equipment of vessels of war that have occurred since the establishment of the yard, and, indeed, within the past few years, can no longer be adequately met. The failure in the past to make the necessary appropriations for the purchase of additional water front makes it a matter of grave consideration what can be done that will adequately provide for the wants of the future. No estimate is made at this time for the purchase of additional land or water front, for various reasons.

The State of Connecticut has conveyed to the government a tract of land, having a water front on the River Thames of one mile and a mean breadth of six hundred and seventy (670) feet. This location is, geographically, well situated to prevent the occupation of Long Island Sound and to guard New York City against the approach of a hostile naval force from that direction. It is a subject of regret to this bureau that a close survey, just completed by the Coast Survey, shows the channel way narrow, and, along the greater part of the water front, further from the shore line than was supposed.

To make a considerable naval station near New London, seems, in every point of view, advantageous. In order to do so, however, it would be worth while to have a full survey made, extending from just above the town to at least one mile above the present proposed site for the yard, so as to be able to select the point naturally the most advantageous and looking to the construction of an extensive fresh-water basin for iron-clads.

In the construction of works of great magnitude too much care cannot be taken in fixing upon the site having the greatest natural advantages, even when most favorably located. The cost of works of this description is great, and is added to, almost beyond belief, when the location is disadvantageous. At the present time no appropriation is asked for beginning the work.

The location of the navy yard at Brooklyn, New York, has long been considered unfortunate. The water front available is quite limited, the Wallabout Channel narrow and subject to extraordinary deposits of dirt and washings in bysewers, so as to render the continual use of dredging machines necessary, at a large annual cost, in order to maintain a required depth of water. At this important station in the harbor of the commercial metropolis of the nation, there are always numbers of vessels of war necessarily crowded together and exposed to imminent danger from fire, the yard being adjacent to buildings of various characters, among the number a large gas-house.

The fact that a very large tract of land has its natural drainage through the yard, the right of way for this drainage reserved for the city, and the formation of the surrounding land such as to render it impossible, except at an enormous expense, to discharge the contents of the public sewers outside the limits of the yard, is now a grave injury. Vessels newly coppered, lying near the discharge of these sewers, require almost entire recoppering in a few months, caused by the action of the acids from manufacturing establishments, and other chemical agents.

At my request General Sherman was good enough to detail some of the ablest engineer officers belonging to the army for the purpose of examining into what can be done to mitigate the disadvantages which weigh upon this naval station. As yet the bureau is not informed as to their opinion.

Under all the circumstances it would seem judicious to have a careful examination made of the adjacent waters, to ascertain if some other site cannot be found more suitable for the purposes of the navy. It is hardly a matter of doubt that a far better site can be selected. The present site is valuable for city purposes, and it is believed that the proceeds of its sale would be quite sufficient to defray the expense attending the establishment of a new yard with capacity commensurate to the prospective wants of the country.

The protection of the city of New York is of paramount importance, and to that end in the future the navy yard, as located, seems inadequate of sufficient extension. In the present relation of vessels in defense as against vessels attacking the city, a material advantage would be obtained by locating the navy yard so that its defense would not be involved in that of the city, but consist of interior lines; the vessels employed to aid in the actual defense of the city and within the harbor would then be able to proceed to their work without embarrassment or delay and would operate with entire assurance.

The navy yard at Philadelphia has less area than any other, and as League Island has been accepted for a navy yard, and the title perfected,

no estimates are submitted for the present yard, except such as are deemed necessary for the annual repairs of the existing works.

For commencing operations at League Island no estimate at this time is submitted. It is suggested that, before active operations are commenced, in the way of the erection of buildings, docks, &c., a complete plan of the yard should be prepared, so that any and all work done on the island may be done with a view to carry out a fixed and well-digested plan. As no appropriations are now asked that do not look to the present or almost immediate usefulness of the expenditure, none are asked for commencing the work on League Island, as the formation of a large naval establishment is necessarily an affair of time and considerable expenditure. This will not prevent the commencement of the quay wall, construction of wharves, and filling in as soon as appropriations are made, and which should be sufficiently large to push the work vigorously.

The yard at Washington has only a small area, too small for an extensive establishment. Of late years it has been more of a repairing and manufacturing than a building yard, and is deemed better adapted for the former purposes than the latter. For either purpose the area is too small, and an estimate is again submitted for its enlargement.

The navy yard at Norfolk, which was destroyed during the rebellion, in natural advantages is superior to any other on the Atlantic coast. Some of the buildings have been rebuilt, but much remains to be done to render the yard capable of meeting the demands of the service upon so important a position. The area of the yard is too limited, but its surroundings are such that a sufficient quantity of land adjoining can be obtained at reasonable prices. It is deemed of much importance that measures should be taken at an early day to secure the necessary land to enlarge this yard to a capacity equal to the wants of the service for all time. The yard, together with adjacent lands and shore lines, furnish sites for dry docks, wet basins, and all the requirements of a navy yard on the largest scale, and being in a locality where all the necessary materials for constructing vessels can be readily obtained, it presents a most favorable position for the establishment of a great naval station. It is not now proposed to ask appropriations for this purpose, but the importance of enlarging and building up, on a proper scale, this admirable point for its purpose, should be regarded as national.

The navy yard at Pensacola was also destroyed during the war, and but little has yet been done toward its reconstruction. This yard is situated near the entrance to Pensacola Bay and exposed to injury from vessels, outside of the harbor, having guns of long range. The location, for this reason, is objectionable, but in view of its being the only station on the Gulf of Mexico, it requires at this time to be made available for repairs. The great importance of having a well-equipped yard on the Gulf of Mexico suggests that, before heavy expenditures are made toward reconstructing this yard, it is worth while to institute an examination to ascertain if some more favorable location cannot be found.

The works upon the navy yard at Mare Island have progressed as rapidly as the means furnished by Congress would permit, and the yard now has facilities for the performance of a considerable amount of work. Many other buildings and other improvements are needed, this being the only station on the Pacific coast. The island is large enough to accommodate all the buildings, docks, and other improvements necessary for a large naval establishment. The present high prices of labor and materials render it necessary to confine the operations to such objects as are indispensably necessary for the present wants of the service.

The station at Sackett's Harbor, the area of which is but three and a

half acres, was established during the war of 1812, since which time it has been retained without a likelihood of prospective value even in the event of a war with Great Britain.

The station at Key West is now used entirely as a depot for coal, and is essential for vessels of war that may be employed in the adjacent waters. No appropriation is asked for its maintenance, the wharf rent being sufficient to keep it in repair.

The station at Mound City, established during our civil war, was found of great use at that time, and has been continued. It is a question at what points the supplies and outfits can be most conveniently and advantageously located, that will be necessary to the different classes of vessels which would be built in the valley of the Mississippi, in the event of a war with any great power. The material and skilled labor are here abundant for the construction of armored vessels of any class, and my attention has been directed, by Vice-Admiral Porter, to the excellent material and construction of the vessels, built on these waters, which were attached to his command during a part of the time of the continuance of our civil war.

The following will show the amounts expended at the various navy yards and stations during the fiscal year ending 30th June, 1869, with estimates for improvements and repairs during the fiscal year ending 30th June, 1871.

In preparing these estimates it has been the aim of the bureau to recommend appropriations for such objects only as are deemed indispensably necessary to carry on the work of the service with economy and promptness, and, in view of the fact that no appropriations have been made for improvements during the past three years, it is earnestly hoped that Congress will exercise that degree of liberality toward the naval service that its great importance merits.

PORTSMOUTH, NEW HAMPSHIRE.

The amount expended for repairs of all kinds, during the fiscal year ending 30th June, 1869, is, for materials, \$13,809 86; and for labor, \$44,479 16; making an aggregate of \$58,289 02.

The amount expended during the year for objects coming under the head of contingent, is \$61,303 32.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For commencing workshop and storehouse for yards and docks; extension of quay wall; yard railroads; enlarging dock-basin and building two railways; repairs of ordnance buildings, and repairs of all kinds, amounting in the aggregate to the sum of \$577,856.

BOSTON, MASSACHUSETTS.

The amount expended for improvements and repairs during the fiscal year ending 30th June, 1869, is, for materials, \$40,481 58; and for labor, \$115,399 26; making an aggregate of \$155,880 84.

The amount expended during the year for objects coming under the head of contingent, is \$114,382 65.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For new chimney at dry dock engine house; quay wall; addition to muster office; filling low places; drains, paving, and flagging; commencing workshop and storehouse for yards and docks; boundary and fence; additional filling at timber dock;

additional rail tracks ; rebuilding sheer wharf ; completing second story of rope-walk ; rigging loft and store for equipment ; repairs of ordnance buildings, and repairs of all kinds, amounting in the aggregate to the sum of \$747,341.

NEW YORK.

The amount expended for improvements and repairs, during the fiscal year ending 30th June, 1869, is, for materials, \$38,232 29; and for labor, \$119,924 89 ; making an aggregate of \$158,157 18.

The amount expended during the year for objects coming under the head of contingent, is \$149,129 80.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For yard railroads ; drains, paving, and flagging ; water pipes and hydrants ; commencing timber and knee basin ; yard walls ; erecting shop ; coal depot ; dredging machine and scows ; repairs of ordnance buildings, and repairs of all kinds, amounting in the aggregate to the sum of \$833,511.

PHILADELPHIA, PENNSYLVANIA.

The amount expended for improvements and repairs during the fiscal year ending 30th June, 1869, is, for materials, \$18,802 56; and for labor, \$32,402 81 ; making an aggregate of \$51,205 37.

The amount expended during the year for objects coming under the head of contingent, is \$56,506 15.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For dredging machine and scows ; repairs of ordnance buildings, and repairs of all kinds, amounting in the aggregate to the sum of \$111,985.

WASHINGTON, D. C.

The amounts expended for repairs of all kinds during the fiscal year ending 30th June, 1869, is, for materials, \$28,823 18 ; and for labor, \$69,321 74 ; making an aggregate of \$98,144 92.

The amount expended during the year for objects coming under the head of contingent, is \$86,859 12.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For depot for coal ; extension of the yard west ; extension of the yard east ; marine railway ; completing ordnance foundry ; experimental battery ; enlargement of officers' quarters E, F, and G ; repairs of ordnance buildings, and repairs of all kinds, amounting in the aggregate to the sum of \$551,775.

NORFOLK, VIRGINIA.

The amount expended for improvements and repairs during the fiscal year ending 30th June, 1869, is, for materials, \$54,180 14 ; and for labor, \$105,692 62 ; making an aggregate of \$159,872 76.

The amount expended during the year for objects coming under the head of contingent, is \$67,707.

Estimates for the following objects are submitted for the fiscal year ending 30th of June, 1871, viz: For workshop No. 39 ; plumbers' shop and iron store ; gas-works No. 43 ; extension of erecting shop ; boiler shop No. 41 ; repairs of ordnance buildings, and for repairs of all kinds, amounting in the aggregate to the sum of \$258,312.

PENSACOLA, FLORIDA.

The amount expended for improvements and repairs during the fiscal year ending 30th June, 1869, is, for materials, \$20,692 38; and for labor, \$73,049 46; making an aggregate of \$93,741 84.

The amount expended during the year for objects coming under the head of contingent, is \$44,298 70.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For iron and coal house; large iron crane; railroad to spar pond, and for repairs of all kinds, amounting in the aggregate to the sum of \$92,423.

MARE ISLAND, CALIFORNIA.

The amount expended for improvements and repairs during the fiscal year ending 30th June, 1869, is, for materials, \$41,082 20; and for labor, \$128,429 63; making an aggregate of \$169,511 83.

The amount expended during the year for objects coming under the head of contingent, is \$84,112 59.

Estimates for the following objects are submitted for the fiscal year ending 30th June, 1871, viz: For completing foundry and boiler establishment; cisterns; gas-house; saw-mill machinery; continuing quay wall; grading and paving; machinery for house-joiners' shop; water pipes; ordnance building; repairs of ordnance buildings, and for repairs of all kinds, amounting in the aggregate to the sum of \$424,559.

SACKETT'S HARBOR, NEW YORK.

The amount expended for repairs of all kinds during the fiscal year ending 30th June, 1869, is \$743 04.

The amount expended during the year for objects coming under the head of contingent, is \$142 63.

Estimates for the repairs of buildings during the fiscal year ending 30th June, 1871, amounting to \$3,200, are submitted.

MOUND CITY, ILLINOIS.

The amount expended for repairs of all kinds during the fiscal year ending 30th June, 1869, is, for materials, \$5,428 99; and for labor, \$20,948 39; making an aggregate of \$26,377 38.

The amount expended during the year for objects coming under the head of contingent, is \$4,055.

Estimates are submitted for the repairs of buildings, &c., during the fiscal year ending 30th June, 1871, amounting to \$6,432.

NAVAL ASYLUM, PHILADELPHIA.

On the 1st of July, 1868, there were one hundred and fifty-three persons, including officers and attendants, borne on the rolls of the asylum. During the fiscal year ending 30th June, 1869, twenty-two beneficiaries have been admitted, thirteen have died, two have been dismissed, and two have been sent to the Insane Asylum.

The amount expended for the usual repairs of the buildings and care of the grounds, is \$6,231 59.

The expenses of the institution for the support of the beneficiaries and pay of officers and attendants during the year, are:

For subsistence.....	\$20,433 06
For clothing, tobacco, &c.....	7,636 90½
For miscellaneous items.....	8,171 96
For officers and attendants.....	25,557 19
Total.....	61,799 11½

The total amount expended during the year is \$68,030 70½.

The amount estimated for the support of the institution during the fiscal year ending 30th June, 1871, is, for annual repairs of buildings, improvement of cemetery, and support of beneficiaries, \$65,100.

CONTINGENT.

The amount estimated under this head as necessary to meet the demands upon it is somewhat larger than the expenditures for the last year, owing to the fact that additional expenses have been entailed upon the bureau by the order requiring it to defray the expenses of all watchmen, ship-keepers and tugs at the different yards. These new items impose a heavy expense upon the contingent fund, and the amount submitted will be absolutely necessary to meet the demands upon the appropriation.

I have the honor to be, very respectfully, your obedient servant,
DAN'L AMMEN,
Chief of the Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

Y. & D.—No. 8.

ABSTRACT OF OFFERS FOR SUPPLIES (EMBRACING AS WELL THOSE WHICH ARE REJECTED AS THOSE WHICH ARE ACCEPTED) RECEIVED FOR FURNISHING ARTICLES COMING UNDER THE COGNIZANCE OF THE BUREAU OF YARDS AND DOCKS, MADE IN CONFORMITY TO THE ACT OF CONGRESS APPROVED MARCH 3, 1843.

Offers for supplies for the navy yard at Portsmouth, New Hampshire, under advertisement dated May 14, 1869.

Class No. 1, bricks:		Class No. 7, lime, hair, and plaster:	
George A. Hammond....	\$1,300 00	David Babcock & Co....	*\$130 00
David Babcock & Co....	1,250 00	Alonzo A. Foster.....	187 50
Samuel Adams & Co....	*1,150 00	Samuel Adams & Co....	135 00
George T. Vaughn.....	1,249 00		
Powers & Gross.....	1,400 00		
Class No. 5, oak and hard-wood:		Class No. 8, cement:	
George A. Hammond....	265 00	David Babcock & Co....	*100 00
Trickey & Jewett.....	*195 00	Alonzo A. Foster.....	225 00
		Samuel Adams & Co....	135 00
Class No. 6, white pine, spruce, juniper, and cypress:		Class No. 9, gravel and sand:	
George A. Hammond....	*4,085 00	David Babcock & Co....	800 00
Trickey & Jewett.....	4,165 00	Samuel Adams & Co....	*140 00
Samuel Adams & Co....	4,255 00		
		Class No. 11, iron, iron spikes, and nails:	
		David Babcock & Co....	1,261 86
		Joseph L. Savage.....	1,200 24

* Accepted.

Wm. E. Coffin & Co.....	*\$1,065 19	Devoe & Waterston.....	†\$324 10
Alonzo A. Foster.....	1,158 98	J. M. Whittemore.....	*353 09
Spalding & Parrott.....	1,115 24		
Class No. 15, paints, oils, and glass:		Class No. 20, hay and straw:	
David Babcock & Co....	734 55	George A. Hammond....	2,400 00
Joseph L. Savage.....	792 50	David Babcock & Co....	4,000 00
Alonzo A. Foster.....	*699 65	Trickey & Jewett.....	2,150 00
Wetherill & Brother....	1,129 10	Daniel P. Spinney.....	*1,870 00
Class No. 16, ship chandlery:		Class No. 21, provender:	
David Babcock & Co....	287 50	David Babcock & Co....	2,378 50
Joseph L. Savage.....	408 00	Wm. Porter & Sons.....	*1,643 75
Alonzo A. Foster.....	*282 00	Class No. 22, charcoal:	
George T. Vaughn.....	523 00	David Babcock & Co....	260 00
Class No. 17, hardware:		Alonzo A. Foster.....	350 00
David Babcock & Co....	1,266 88	Charles G. Brown.....	*200 00
Joseph L. Savage.....	1,371 40	Class No. 32, machinery and tools:	
Alonzo A. Foster.....	*1,169 55	David Babcock & Co....	*179 11
Class No. 18, stationery:		Wm. Porter & Sons.....	263 59
Dempsey & O'Toole....	421 87	Joseph L. Savage.....	281 50
		Alonzo A. Foster.....	196 23

Offers for supplies for the navy yard at Boston, Massachusetts, under advertisement dated May 14, 1869.

Class No. 5, oak and hardwood:		Wm. E. Coffin & Co.....	\$1,995 00
Trickey & Jewett.....	\$600 00	Francis H. Smith.....	2,214 00
David Babcock & Co....	*550 00	David Babcock & Co....	2,333 75
Class No. 6, white pine, spruce, juniper, and cypress:		Class No. 12, steel:	
Trickey & Jewett.....	*3,195 00	George H. Creed.....	156 00
David Babcock & Co....	3,535 00	Joseph L. Savage.....	192 00
Class No. 8, cement:		Baldwin & Livezey.....	137 25
Alonzo A. Foster.....	516 00	Alonzo A. Foster.....	†137 25
Francis H. Smith.....	438 00	David Babcock & Co....	182 50
David Babcock & Co....	*400 00	Class No. 14, files:	
Class No. 9, gravel and sand:		George H. Creed.....	*231 15
David Babcock & Co....	*1,425 00	Joseph L. Savage.....	232 10
Class No. 10, slate:		Alonzo A. Foster.....	238 26
A. Wilbur & Co.....	670 00	George H. Barnett.....	251 32
David Babcock & Co....	*602 00	Class No. 15, paints, oils, and glass:	
Class No. 11, iron, iron spikes, and nails:		George H. Creed.....	*2,216 60
George H. Creed.....	*1,932 50	Joseph L. Savage.....	2,679 80
Joseph L. Savage.....	1,986 00	Alonzo A. Foster.....	2,663 94
Alonzo A. Foster.....	1,985 00	Wetherill & Brother....	3,393 84
		Prescott, Ring & Co....	3,026 33
		Francis H. Smith.....	2,863 60
		David Babcock & Co....	2,676 32
		Class No. 16, ship chandlery:	
		George H. Creed.....	*715 35
		Joseph L. Savage.....	860 65

* Accepted.

† Informal.

‡ Decided by lot.

Alonzo A. Foster.....	\$780 36	Joseph L. Savage.....	\$1,574 50
Prescott, Ring & Co.....	1,100 56	Prescott, Ring & Co.....	1,474 49
David Babcock & Co.....	892 81	C. M. Clapp & Co.....	1,319 25
		David Babcock & Co.....	2,089 21
Class No. 17, hardware :			
George H. Creed.....	*2,430 75	Class No. 24, sperm and lu- bricating oils :	
Joseph L. Savage.....	2,693 95	George H. Creed.....	*207 00
Alonzo A. Foster.....	2,845 25	James M. Motley.....	248 85
David Babcock & Co.....	3,200 87	Joseph L. Savage.....	243 00
		Mullett & Bradbury	256 05
Class No. 18, stationery :			
Dempsey & O'Toole.....	*878 95	David Babcock & Co.....	238 50
A. E. Cutter.....	1,033 97		
J. M. Whittemore	1,009 31	Class No. 25, iron work, piping, &c. :	
Devoe & Waterston.....	925 78	George H. Creed.....	1,962 00
		Prescott, Ring & Co.....	*1,895 86
Class No. 21, provender :			
George H. Creed.....	*1,658 30	Walworth & Scudder...	2,672 52
Mullett & Bradbury	1,991 50	Francis H. Smith.....	2,141 60
Wm. Porter & Sons.....	1,836 30	David Babcock & Co.....	2,215 58
David Babcock & Co.....	3,136 10		
		Class No. 31, copper and com- position nails :	
Class No. 22, charcoal :			
George H. Creed.....	120 00	George H. Creed.....	515 00
Mullett & Bradbury	*72 00	Joseph L. Savage.....	505 00
David Babcock & Co.....	78 00	Alonzo A. Foster.....	*472 50
		S. T. Snow.....	535 00
Class No. 23, belting, pack- ing, and hose :			
George H. Creed.....	*994 05	Francis H. Smith.....	539 50
		David Babcock & Co.....	530 00

Offers for supplies for the navy yard at Brooklyn, New York, under advertisement dated May 14, 1869.

Class No. 4, yellow pine lum- ber :		Class No. 9, gravel and sand :	
David Babcock & Co....	\$3,690 00	David Babcock & Co.....	*\$40 00
R. J. & W. Neely & Co..	*3,145 50		
Class No. 5, oak and hard wood :		Class No. 10, slate :	
David Babcock & Co....	*296 80	David Babcock & Co.....	*4,434 50
		Isaac Parker.....	4,525 00
Class No. 6, white pine, spruce, juniper, and cy- press :		Class No. 11, iron, iron spikes, and nails :	
David Babcock & Co....	*1,983 25	Francis H. Smith.....	1,712 91
		Joseph L. Savage.....	1,566 12
Class No. 7, lime, hair, and plaster :		George H. Creed.....	*1,459 27
Francis H. Smith.....	250 88	David Babcock & Co....	1,709 40
David Babcock & Co....	*156 80	Alonzo A. Foster.....	1,688 53
Alonzo A. Foster.....	176 96		
Class No. 8, cement :		Class No. 14, files :	
Francis H. Smith.....	219 00	George H. Barnett.....	212 17
David Babcock & Co....	*160 00	Joseph L. Savage.....	*196 50
		George H. Creed.....	198 15
		Alonzo A. Foster.....	205 68
		Class No. 15, paints, oils, and glass :	
		Francis H. Smith.....	876 74

* Accepted.

Joseph L. Savage	\$929 60	Class No. 23, belting, pack- ing, and hose:	
George H. Creed	*850 95	Francis H. Smith	\$1,736 00
David Babcock & Co.	898 93	Joseph L. Savage	*1,289 50
Alonzo A. Foster	964 05	C. M. Clapp & Co.	1,877 00
Wetherill & Brother	945 98	Junius Schenck	2,393 75
Class No. 16, ship chandlery:		George H. Creed	2,062 50
Joseph L. Savage	1,100 30	David Babcock & Co.	1,977 90
George H. Creed	945 80	Class No. 25, iron-work, piping, &c.:	
David Babcock & Co.	1,077 78	George H. Creed	565 40
Alonzo A. Foster	*926 60	David Babcock & Co.	542 57
Class No. 17, hardware:		Alonzo A. Foster	*390 49
Joseph L. Savage	2,677 75	Class No. 26, augers:	
George H. Creed	2,422 00	Joseph L. Savage	122 50
David Babcock & Co.	2,995 54	George H. Creed	85 37
Alonzo A. Foster	*2,321 45	David Babcock & Co.	93 70
Class No. 18, stationery:		Alonzo A. Foster	*82 44
Dempsey & O'Toole	1,118 92	Class No. 31, copper and com- position nails:	
J. M. Whittemore	1,229 00	Francis H. Smith	2,441 60
Seymour, Kennard & Hay ..	*972 04	Joseph L. Savage	2,170 00
W. H. Arthur & Co.	1,119 72	George H. Creed	2,310 00
George H. Creed	1,193 15	David Babcock & Co.	2,450 00
Devoe & Waterston	992 54	Alonzo A. Foster	*1,890 00
Cutter, Tower & Co.	995 76	S. T. Snow	2,450 00
Class No. 20, hay and straw:		Class No. 32, machinery and tools:	
Joseph L. Savage	2,430 00	Joseph L. Savage	*1,275 00
George H. Creed	*2,072 00	George S. Lincoln & Co. ..	1650 00
David Babcock & Co.	2,212 00	George H. Creed	2,275 00
Class No. 21, provender:			
George H. Creed	*3,495 50		
David Babcock & Co.	5,622 00		
Wm. Porter & Sons	3,581 75		

Offers for supplies for the navy yard at Philadelphia, Pennsylvania, under advertisement dated May 14, 1869.

Class No. 3, yellow pine tim- ber:		Alonzo A. Foster	*\$21 00
R. J. & W. Neely & Co.	\$1,145 98	David Babcock & Co.	36 00
David Babcock & Co.	*1,131 12	Class No. 8, cement:	
Class No. 5, oak and hard wood:		Paul J. Field	56 00
David Babcock & Co.	*207 00	Joseph L. Savage	80 00
Class No. 6, white pine, spruce, &c.:		Alonzo A. Foster	20 64
J. C. Williams	666 00	David Babcock & Co.	*16 00
Thomas & Pohl	731 65	Class No. 9, gravel and sand:	
David Babcock & Co.	*539 00	Paul J. Field	310 00
Class No. 7, lime, hair, and plaster:		Alonzo A. Foster	270 00
Paul J. Field	33 00	D. Babcock & Co.	*250 00
Joseph L. Savage	45 00	Class No. 9½, molding and fire sand, and fire clay:	
* Accepted.		Paul J. Field	14 00
		Joseph L. Savage	50 00
		David Babcock & Co.	*6 00
		* Informal.	

Class No. 11, iron, iron spikes,
and nails:

Paul J. Field	\$261 37
Joseph L. Savage	247 60
Alonzo A. Foster	264 12
J. B. Shannon	250 50
George H. Creed	*242 75
David Babcock & Co....	286 50

Class No. 16, ship chandlery:

Paul J. Field	43 50
Joseph L. Savage	*29 00
Alonzo A. Foster	39 95
David Babcock & Co....	35 70

Class No. 17, hardware:

Paul J. Field	26 00
Joseph L. Savage	22 00
Alonzo A. Foster	21 68
J. B. Shannon	*11 52
George H. Creed	27 00
David Babcock & Co....	21 00
Wm. Porter & Sons.....	29 60

Class No 18, stationery:

Dempsey & O'Toole.....	*576 17
Henry Cohen & Son.....	649 81
Devoe & Waterston.....	558 96
Moss & Greene	762 85

Class No. 20, hay and straw:

Paul J. Field	*1,030 40
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Joseph L. Savage.....	\$1,070 00
Alonzo A. Foster.....	1,202 25
Wm. R. Bowman & Co..	1946 80
George H. Creed.....	1,037 50
David Babcock & Co....	1,217 50

Class No 21, provender:

Paul J. Field	*1,287 50
Alonzo A. Foster	1,582 00
Wm. R. Bowman & Co..	1,325 75
George H. Creed.....	1,384 75
David Babcock & Co ...	2,039 00
William Porter & Sons..	1,581 00

Class No. 22, charcoal:

Paul J. Field	19 50
Alonzo A. Foster.....	*17 85
David Babcock & Co....	75 00

Class No. 23, belting, pack-
ing, and hose:

Paul J. Field	*55 75
Joseph L. Savage	120 75
Alonzo A. Foster.....	89 70
C. M. Clapp & Co.....	58 25
David Babcock & Co....	81 75

Class No. 32, machinery and
tools:

Paul J. Field	1,175 08
Joseph L. Savage.....	1,710 18
Alonzo A. Foster.....	*992 09

*Offer for supplies for the Naval Asylum at Philadelphia, Pennsylvania, under advertise-
ment dated May 14, 1869.*

Class No. 1, clothing:

Jacob Reed.....	*\$3,672 50
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Class No. 2, hats, boots, and
shoes:

Barton & Bro.....	*847 50
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Class No. 3, provisions:

G. & A. Scheidt.....	*9,943 00
Thomas Strickland.....	10,285 80

Class No. 4, groceries:

Crippen & Maddock	7,706 70
Joseph L. Savage	9,884 95
Albert C. Roberts	8,101 55
Anderson & Dunlap.....	*7,573 12

Class No. 5, dry goods:

Crippen & Maddock	1,236 50
Joseph L. Savage	699 50
Thomas Carstairs	771 43
George Milliken	*654 30

Class No. 6, bread, &c.:

Joseph L. Savage.....	\$3,294 50
John McIlwain	*1,416 50

Class No. 7, tobacco:

Paul J. Field	1,470 00
Crippen & Maddock	1,485 00
Joseph L. Savage	2,850 00
Thomas Carstairs	*1,001 25

Class No. 8, coal:

Joseph L. Savage.....	4,125 00
Audenried, Norton & Co.	*3,300 00

Class No. 9, paints, oils, and
glass:

Crippen & Maddock	361 00
Joseph L. Savage.....	186 00
Eli S. Shorter.....	*144 55
Wetherill & Bro.....	150 75
J. B. Shannon.....	148 30

* Accepted.

† Informal.

Class No. 11, lumber:

Crippen & Maddock	\$458 50
Thomas & Pohl	*350 29
J. R. Williams	369 92
J. C. Williams	358 75

Class No. 12, firewood:

Paul J. Field	*176 00
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Class No. 13, provender:

Paul J. Field	312 00
Crippen & Maddock	355 00
Wm. Porter & Sons	340 00
Thomas Carstairs	*301 70
W. R. Bowman & Co.	†243 90
Thomas Strickland	536 50

Class No. 14, miscellaneous:

Crippen & Maddock	\$1,530 00
Joseph L. Savage	1,011 00
Thomas Carstairs	*789 75
J. B. Shannon	795 30

Class No. 15, hardware:

Paul J. Field	254 92
Joseph L. Savage	251 80
J. B. Shannon	*212 23

Class No. 16, stationery:

Dempsey & O'Toole	*228 70
Devoe & Waterston	293 47

Offers for supplies for the navy yard at Washington, D. C., under advertisement dated May 14, 1869.

Class No. 1, bricks:

S. P. Brown & Son	\$1,275 00
David Babcock & Co.	1,200 00
Charles Ford & Bro.	*1,189 00
Evans & Teemyer	1,350 00

Class No. 2, stone:

Joseph L. Savage	2,760 00
S. P. Brown & Son	3,000 00
David Babcock & Co.	*1,920 00
Evans & Teemyer	2,800 00

Class No. 4, yellow pine lumber:

S. P. Brown & Son	135 00
David Babcock & Co.	144 00
T. Edward Clark & Co. ...	*123 00
Evans & Teemyer	135 00

Class No. 5, oak and hard wood:

S. P. Brown & Son	817 50
David Babcock & Co.	†817 50
T. Edward Clark & Co. ...	982 50
Evans & Teemyer	1,207 50

Class No. 6, white pine, spruce, juniper, and cypress:

S. P. Brown & Son	5,567 50
David Babcock & Co.	5,545 00
T. Edward Clark & Co. ...	5,795 00
Evans & Teemyer	*4,879 50

Class No. 7, lime, hair, and plaster:

Joseph L. Savage	*375 00
S. P. Brown & Son	395 00
David Babcock & Co.	457 00

William Guinand	\$413 50
Francis H. Smith	682 00
Evans & Teemyer	535 00

Class No. 8, cement:

Joseph L. Savage	*485 00
S. P. Brown & Son	500 00
David Babcock & Co.	500 00
William Guinand	525 00
Wilson & Suter	625 00
Evans & Teemyer	562 50

Class No. 9, gravel and sand:

Joseph L. Savage	464 00
David Babcock & Co.	2,450 00
T. Edward Clark & Co. ...	462 50
William Guinand	*450 00

Class No. 11, iron, iron spikes, and nails:

Joseph L. Savage	*1,039 50
David Babcock & Co.	1,385 25
Alonzo A. Foster	1,143 00

Class No. 13, pig iron:

Joseph L. Savage	*2,025 00
David Babcock & Co.	2,340 00
Francis H. Smith	2,195 00
Wm. E. Coffin & Co.	2,150 00

Class No. 15, paints, oils, and glass:

Joseph L. Savage	*490 75
David Babcock & Co.	895 50
Wetherill & Bro.	610 50

Class No. 16, ship chandlery:

Joseph L. Savage	*825 80
David Babcock & Co.	980 71

* Accepted.

† Informal.

‡ Decided by lot.

Samuel E. Rice.....	\$922 44	T. Edward Clark & Co..	*\$1,524 00
Alonzo A. Foster.....	859 58	P. W. Dorsey.....	1,554 00
Class No. 17, hardware:		Wm. Porter & Sons.....	2,046 75
Joseph L. Savage.....	*1,211 26	Wilson & Suter.....	1,742 50
David Babcock & Co....	1,342 67	Class No. 23, belting, pack-	
Alonzo A. Foster.....	1,304 32	ing, and hose:	
Class No. 18, stationery:		Joseph L. Savage.....	*512 00
Devoe & Waterston.....	†818 99	David Babcock & Co....	1,145 50
Dempsey & O'Toole.....	*895 08	C. M. Clapp & Co.....	793 00
J. M. Whittemore.....	911 16	Junius Schenck.....	671 00
Class No. 20, hay and straw:		Samuel E. Rice.....	638 56
Joseph L. Savage.....	*1,044 40	Class No. 25, iron work, pip-	
David Babcock & Co....	1,715 00	ing, &c.:	
T. Edward Clark & Co..	1,167 60	Joseph L. Savage.....	*222 50
P. W. Dorsey.....	1,134 00	David Babcock & Co....	265 75
Wilson & Suter.....	1,244 25	Francis H. Smith.....	259 45
Class No. 21, provender:		Alonzo A. Foster.....	269 50
Joseph L. Savage.....	1,651 50	Class No. 32, machinery and	
David Babcock & Co....	2,287 50	tools:	
		David Babcock & Co....	*450 00

Offers for supplies for the navy yard at Norfolk, Virginia, under advertisement dated May 14, 1869.

Class No. 4, yellow-pine lum-		Lookins & Myers.....	\$30 00
ber:		Joseph L. Savage.....	31 25
A. A. McCullough.....	\$1,411 84	Class No. 8, cement:	
David Babcock & Co....	2,075 40	A. A. McCullough.....	350 00
R. J. & W. Neely & Co..	1,614 90	David Babcock & Co....	*250 00
D. C. Crowell.....	1,697 37	Klinefelter & Brother...	356 25
Murdock Howell.....	*1 390 32	Wilson & Suter.....	325 00
Lookins & Myers.....	1,978 50	Murdock Howell.....	331 25
S. P. Brown & Son.....	1,890 50	Lookins & Myers.....	468 75
Class No. 5, oak and hard		Joseph L. Savage.....	273 75
wood:		S. P. Brown & Son.....	343 75
A. A. McCullough.....	37 70	Taylor, Martin & Co....	487 50
David Babcock & Co....	39 00	Class No. 11, iron, iron spikes	
R. J. & W. Neely & Co..	40 62	and nails:	
D. C. Crowell.....	39 00	David Babcock & Co....	434 11
Murdock & Howell.....	*29 25	Alonzo A. Foster.....	366 61
Lookins & Myers.....	32 50	Lookins & Myers.....	431 50
Class No. 6, white pine, spruce,		Joseph L. Savage.....	377 50
juniper, and cypress:		John Nash & Son.....	384 50
A. A. McCullough.....	*417 00	Taylor, Martin & Co....	*348 94
David Babcock & Co....	487 50	Class No. 14, files:	
R. J. & W. Neely & Co..	462 00	Alonzo A. Foster.....	50 58
Murdock Howell.....	488 75	Lookins & Myers.....	55 20
Lookins & Myers.....	600 00	Joseph L. Savage.....	*42 00
S. P. Brown & Son.....	530 00	Taylor, Martin & Co....	64 50
Class No. 7, lime, hair, and		Class No. 15, paints, oils, and	
plaster:		glass:	
A. A. McCullough.....	*21 25	David Babcock & Co....	1,076 40
David Babcock & Co....	28 50	Francis H. Smith.....	*1,039 65
Klinefelter & Brother...	21 75		
Murdock Howell.....	22 50		

*Accepted.

†Informal.

Wetherill & Bro.....	\$1,356 95	Class No. 21, provender:	
Alonzo A. Foster.....	1,108 70	A. A. McCullough.....	*\$2,217 50
Joseph L. Savage.....	1,222 70	David Babcock & Co....	4,765 00
Class No. 16, ship chandlery:		William Porter & Son...	4,101 25
David Babcock & Co....	1,142 42	D. C. Crowell.....	2,606 25
Samuel E. Rice.....	1,211 11	Wilson & Suter.....	3,528 75
Alonzo A. Foster.....	*914 94	Lookins & Myers.....	2,574 75
Joseph L. Savage.....	1,527 67	A. P. Grice.....	2,495 00
Taylor, Martin & Co....	1,382 23	Taylor, Martin & Co....	2,851 25
Class No. 17, hardware:		Class No. 22, charcoal:	
David Babcock & Co....	601 44	A. A. McCullough.....	100 00
Alonzo A. Foster.....	590 73	David Babcock & Co....	*58 00
Lookins & Myers.....	†198 40	William Porter & Sons..	90 00
Joseph L. Savage.....	*567 22	Lookins & Myers.....	68 00
Taylor, Martin & Co....	727 60	Taylor, Martin & Co....	100 00
Class No. 18, stationery:		Class No. 25, iron work, piping, &c.:	
John M. Whittemore....	616 46	David Babcock & Co....	*100 50
Devoe & Waterston....	†461 55	Francis H. Smith.....	110 25
Dempsey & O'Toole....	*547 16	Alonzo A. Foster.....	139 00
Class No. 20, hay and straw:		Lookins & Myers.....	150 75
A. A. McCullough.....	1,960 00	Joseph L. Savage.....	119 75
David Babcock & Co....	2,800 00	Charles C. Grice.....	128 25
D. C. Crowell.....	1,677 20	Taylor, Martin & Co....	134 50
Wilson & Suter.....	2,310 00	Class No. 31, copper and com- position nails:	
Lookins & Myers.....	1,820 00	David Babcock & Co....	†136 08
Joseph L. Savage.....	1,995 00	Alonzo A. Foster.....	136 08
John Nash & Son.....	1,713 60	Lookins & Myers.....	186 00
Taylor, Martin & Co....	*1,645 00	Joseph L. Savage.....	†5 76
		Taylor, Martin & Co....	180 00

Offers for supplies for the navy yard at Pensacola, Florida, under advertisement dated May 14, 1869.

Class No. 1, bricks:		Alonzo A. Foster.....	\$1,411 25
Joseph L. Savage.....	\$269 50	Francis H. Smith.....	1,429 00
David Babcock & Co....	*107 50	C. McK. Oerting.....	1,639 50
James D. Kenny.....	115 00	George H. Creed.....	1,331 00
A. L. Avery.....	140 00	David Babcock & Co....	1,509 50*
Class No. 5, oak and hard wood:		James D. Kenny.....	1,452 00
David Babcock & Co....	*77 00	William E. Coffin & Co..	*1,214 00
A. L. Avery.....	120 00	A. L. Avery.....	1,794 00
Class No. 6, white pine, spruce, juniper, and cy- press:		Class No. 12, steel:	
David Babcock & Co....	297 50	Joseph L. Savage.....	102 75
James D. Kenny.....	*292 00	Alonzo A. Foster.....	111 50
A. L. Avery.....	380 00	George H. Creed.....	127 50
Class No. 11, iron, iron spikes, and nails:		David Babcock & Co....	120 75
Joseph L. Savage.....	1,587 00	Baldwin & Livezey.....	*91 87
		A. L. Avery.....	191 25
		Class No. 14, files:	
		Joseph L. Savage.....	54 00
		Alonzo A. Foster.....	*27 66
		George H. Creed.....	28 00
		James D. Kenny.....	42 00
		A. L. Avery.....	62 00

* Accepted.

† Informal.

‡ Decided by lot.

Class No. 15, paints, oils, and glass:

Joseph L. Savage.....	\$2,339 80
Francis H. Smith.....	*2,061 15
George H. Creed.....	2,191 95
David Babcock & Co.....	2,238 45
Wetherill & Brother....	2,279 20
James D. Kenny.....	2,224 10
A. L. Avery.....	2,521 75

Class No. 16, ship chandlery:

Joseph L. Savage.....	1,727 71
Alonzo A. Foster.....	1,464 84
George H. Creed.....	1,436 18
David Babcock & Co.....	1,394 83
James D. Kenny.....	*1,243 99
A. L. Avery.....	1,614 94

Class No. 17, hardware:

Joseph L. Savage.....	*1,120 69
Alonzo A. Foster.....	1,275 10
George H. Creed.....	1,619 76
David Babcock & Co....	1,584 93
A. L. Avery.....	2,001 20

Class No. 18, stationery:

Dempsey & O'Toole.....	*439 15
W. H. Arthur & Co.....	499 55
John M. Whittmore....	511 10
A. L. Avery.....	736 35
Thomas Steele.....	557 55

Class No. 20, hay and straw:

Thomas Zuayle.....	*370 00
George H. Creed.....	400 00

David Babcock & Co....	\$430 00
A. L. Avery.....	450 00

Class No. 21, provender:

Thomas Zuayle.....	932 50
Alonzo A. Foster.....	1,175 00
George H. Creed.....	1,200 00
David Babcock & Co....	*833 00
A. L. Avery.....	897 50

Class No. 22, charcoal:

Thomas Zuayle.....	*15 00
Alonzo A. Foster.....	37 50
George H. Creed.....	75 00
David Babcock & Co....	27 50
James D. Kenny.....	40 00

Class No. 23, belting, packing, and hose:

Joseph L. Savage.....	661 60
Francis H. Smith.....	*525 22
George H. Creed.....	563 40
David Babcock & Co....	728 00
C. M. Clapp & Co.....	534 69
A. L. Avery.....	916 25

Class No. 31, copper and composition nails:

Joseph L. Savage.....	*660 75
Alonzo A. Foster.....	680 63
Francis H. Smith.....	686 92
George H. Creed.....	706 50
David Babcock & Co....	693 37
James D. Kenny.....	698 62½
S. T. Snow.....	700 50
A. L. Avery.....	771 75

Offers for supplies for the navy yard at Mare Island, California, under advertisement dated June 5, 1869.

Class No. 1, bricks:

James F. Houghton.....	\$372 00
A. Powell.....	*360 00

Class No. 4, Oregon pine:

James F. Houghton.....	638 50
A. Powell.....	*621 00

Class No. 5, oak and hard wood:

James F. Houghton.....	2,529 60
A. Powell.....	*2,103 00

Class No. 6, white pine, &c.:

James F. Houghton.....	959 00
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A. Powell.....	*\$947 50
Blyth & Wetherbee.....	1,122 50

Class No. 7, lime and plaster:

James F. Houghton.....	208 50
A. Powell.....	*203 00

Class No. 8, cement:

A. Powell.....	*200 00
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Class No. 9, gravel and sand:

James F. Houghton.....	*119 50
A. Powell.....	137 50

Class No. 14, files:

Rockwell, Coye & Co....	*25 71
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* Accepted.

Class No. 15, paints, oils, and glass :		Class No. 18, stationery :	
Whittier, Fuller & Co....	\$643 50	L. H. Bonestell.....	*\$315 36
Kelly, Walsh & Co.....	*635 50	H. H. Bancroft.....	638 39
Class No. 16, ship chandlery :		Class No. 24, sperm and lubricating oils :	
J. D. Farwell & Co.....	*520 85	Whittier, Fuller & Co....	*3,196 00
Class No. 17, hardware :		Kelly, Walsh & Co.....	3,197 50
Rockwell, Coye & Co.....	†324 43	Class No. 30, bituminous coal :	
* Accepted.		James F. Houghton	940 00
BUREAU YARDS AND DOCKS, October 1, 1869.		A. Powell.....	990 00
		Haste & Kirk.....	*800 00
		† Informal.	

BUREAU OF CONSTRUCTION AND REPAIR.

NAVY DEPARTMENT,
Bureau Construction and Repair.
November 12, 1869.

SIR: In compliance with your instructions of the 2d September, 1869, I respectfully state that, for the purposes of this bureau, there will be required for the fiscal year ending June 30, 1871, the sum of \$8,068,160, as shown in the accompanying papers marked A, B, and C.

The estimate of the expenses of this bureau, as given in the tabular statement marked A, is in accordance with the laws therein referred to.

The estimate of the pay of civil officers, inspectors of timber, clerks, and draughtsmen, in the tabular statement marked B, is for the services of persons who cannot be dispensed with while any work is being done in the navy yards. Correct accounts of material and labor must be kept, and a proper supervision must be given to the work, in which the employment of incompetent persons would be a great loss to the government. Capable persons can be obtained for less at an annual salary than at a daily pay.

The estimate marked C is for the maintenance of the navy in commission, for the preservation of the vessels in ordinary, the material and labor expended in navy yards and abroad, the purchase of tools and appliances, embracing the launching of the five ships now nearly completed on the stocks, which will be needed in order to keep the proposed number of men afloat. These vessels are built of unseasoned timber, and their time of usefulness will be very short.

This estimate embraces only the current wants of the service; but an additional and special appropriation will be needed, if it shall be determined to collect supplies of timber that may become seasoned for future use.

As the durability of a wooden ship depends much on the character of the material of which the frame is composed, it is very desirable that the stock of live oak shall be increased.

As it becomes necessary to launch the ships on the stocks, their places should be supplied by others, that they may have sufficient time to season, which is necessary even with the best timber that can be had.

I am, sir, very respectfully, your obedient servant,

JOHN LENTHALL,
Chief of Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy, Washington, D. C.

A.

Estimate of the amount required for the civil and contingent expenses of the Bureau of Construction and Repair for the fiscal year ending June 30, 1871.

For salary of chief of bureau, per act of July 5, 1862, section 3.....	\$3,500
For salary of chief clerk, per act of July 5, 1862, section 3.....	1,800
For salary of one draughtsman, per act of March 2, 1867.....	1,800
For salary of one clerk, (fourth class,) per act of July 23, 1866, section 8.....	1,800
For salary of two clerks, (third class,) per act of July 23, 1866, section 8.....	3,200
For salary of two clerks, (second class,) per act of July 23, 1866, section 8.....	2,800
For salary of one messenger, per act of March 3, 1869.....	840
For salary of one laborer, per act of March 3, 1869.....	720
	<hr/>
	16,460
For amount submitted as increase in salary of chief clerk.....	400
For contingent expenses.....	1,000
	<hr/>
Total.....	17,860

BUREAU OF CONSTRUCTION AND REPAIR, November 12, 1869.

B.

Estimate of the pay of superintendents, inspectors of timber, clerks, and draughtsmen, under the cognizance of the Bureau of Construction and Repair, at the navy yards and stations, for the fiscal year ending June 30, 1871.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.	Pensacola.	Mare Island.
Assistant nava constructor.....	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Inspector of timber.....	1,400	1,500	1,500	1,400	1,300	1,200	.....	1,500
Draughtsmen to naval constructor.....	1,400	1,400	1,400	1,400	.....	1,400	.....	1,400
Clerk of store-houses.....	1,500	1,500	1,500	1,500	1,400	1,400	1,200	1,500
Clerk of store-houses.....	.....	1,200	1,200	.....	.....	.....	.....	1,200
Clerk to naval constructor.....	1,400	1,500	1,500	1,400	1,200	1,200	.....	1,500
Clerk to naval constructor.....	.....	1,200	1,200	.....	.....	.....	.....	.....
Time clerk.....	1,400	1,500	1,500	1,400	1,200	1,200	.....	1,500
Superintendent of floating dock.....	1,400	.....	.....	1,400	.....	.....	.....	1,500
Total.....	10,500	11,800	11,800	10,500	7,000	8,400	3,200	12,100

RECAPITULATION.

Civil officers, navy yard, Portsmouth.....	\$10,500
Civil officers, navy yard, Boston.....	11,800
Civil officers, navy yard, New York.....	11,800
Civil officers, navy yard, Philadelphia.....	10,500
Civil officers, navy yard, Washington.....	7,000
Civil officers, navy yard, Norfolk.....	8,400
Civil officers, navy yard, Pensacola.....	3,200
Civil officers, navy yard, Mare Island.....	12,100
	<hr/>
Total for civil officers.....	75,300

BUREAU OF CONSTRUCTION AND REPAIR, November 12, 1869.

C.

Estimate of the amount required by the Bureau of Construction and Repair for the maintenance and repair of the navy, on the basis of a service of twelve thousand men, for the fiscal year ending June 30, 1871.

For the preservation of vessels on the stocks and in ordinary; the purchase of materials and stores of all kinds; labor in navy yards and on foreign stations; preservation of materials; purchase of tools; wear and tear, and repair of vessels afloat; the discharge of liabilities; and the general maintenance of the navy..... \$7,975,000 00

BUREAU OF CONSTRUCTION AND REPAIR, November 12, 1869.

Estimate of the appropriations under the cognizance of the Bureau of Construction and Repair Navy Department, required for the service of the fiscal year ending June 30, 1871.

GENERAL RECAPITULATION.

	Estimate of appropriations required for the service of the fiscal year ending June 30, 1871.	Estimate of balance of appropriations unexpended at June 30, 1870, which may be applied for the next fiscal year.	Appropriations for fiscal year ending June 30, 1870
Civil and contingent expenses of bureau.....	\$17, 860	.....	\$13, 640
Pay of civil officers.....	75, 300	.....	30, 000
Maintenance of the navy.....	7, 975, 000	.....	2, 500, 000
Total.....	8, 068, 160	.....	2, 543, 640

BUREAU OF CONSTRUCTION AND REPAIR, November 12, 1869.

BUREAU OF CONSTRUCTION AND REPAIR.

Offers to furnish materials for the navy, under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Kittery, Maine.

Class No. 7, yellow pine logs:		George A. Hammond....	\$4, 884 00
James Bigler & Co.....	*\$6, 581 25	William H. White.....	5, 280 00
George A. Hammond.....	9, 450 00	Trickey & Jewett.....	4, 950 00
Joseph W. Duryee.....	9, 750 00	William M. Shakespear..	5, 214 00
William H. White.....	7, 350 00	S. P. Brown & Son.....	11, 748 00
Trickey & Jewett.....	6, 600 00	Watson & Pittinger.....	8, 844 00
George T. Wallace.....	7, 200 00	Joseph L. Savage.....	11, 550 00
William M. Shakespear..	8, 925 00	K. V. Whaley.....	4, 422 00
S. P. Brown & Son.....	8, 100 00	Class No. 13, white-pine plank, boards:	
Watson & Pittinger.....	11, 100 00	Trickey & Jewett.....	*9, 531 50
Joseph L. Savage.....	11, 100 00	David Babcock & Co....	14, 530 50
K. V. Whaley.....	7, 350 00	James Bigler & Co.....	11, 489 90
Class No. 8, yellow pine beams:		George A. Hammond....	12, 798 50
George T. Wallace.....	*3, 300 00	Joseph W. Duryee.....	13, 164 60
James Bigler & Co.....	4, 554 00	S. P. Brown & Son.....	13, 941 60
		Watson & Pittinger.....	16, 617 50

* Accepted.

Class No. 15, white ash, elm,
beech:

Joseph W. Duryee.....	*\$1,575 00
David Babcock & Co....	1,850 00
R. J. & W. Neely & Co..	1,980 00
James Bigler & Co.....	1,800 00
George A. Hammond....	1,590 00
Trickey & Jewett.....	1,700 00
S. P. Brown & Son.....	2,050 00
Watson & Pittinger.....	1,950 00

Class No. 42, lead, pipe, sheet:

Francis H. Smith.....	*414 00
Joseph L. Savage.....	450 00
David Babcock & Co....	476 00
George H. Creed.....	476 00
William Porter & Son...	530 00

Class No. 43, zinc:

Francis H. Smith.....	*1,836 00
David Babcock & Co....	1,900 00
William Porter & Sons..	1,858 00
George H. Creed.....	1,880 00
Hyatt & Spencer.....	2,050 00
Joseph L. Savage.....	1,875 00

Class No. 49, screws of brass
and iron:

William Porter & Sons..	*280 35
David Babcock & Co....	284 50
George H. Creed.....	348 00
S. H. Mills.....	377 50
Hyatt & Spencer.....	291 35
Alonzo A. Foster.....	333 05
Joseph L. Savage.....	293 30

Class No. 50, files:

Joseph L. Savage.....	*53 90
Alonzo A. Foster.....	60 99
Hyatt & Spencer.....	67 50
G. & H. Barnett.....	64 03
George H. Creed.....	91 50

Class No. 53, tools for use in
yards and shops:

Alonzo A. Foster.....	*1,311 50
David Babcock & Co....	1,365 00
Joseph L. Savage.....	1,499 00

Class No. 56, white lead:

Joseph L. Savage.....	*1,175 00
David Babcock & Co....	1,350 00
William Porter & Sons..	1,375 00

George H. Creed.....	\$1,250 00
S. H. Mills.....	1,490 00
Hyatt & Spencer.....	1,475 00
Francis H. Smith.....	1,269 00

Class No. 57, zinc paints:

Francis H. Smith.....	*27 87
David Babcock & Co....	29 25
William Porter & Sons..	37 50
George H. Creed.....	42 00
S. H. Mills.....	42 00
Hyatt & Spencer.....	31 50
Joseph L. Savage.....	36 00

Class No. 58, colored paints,
dryers:

Francis H. Smith.....	*104 75
David Babcock & Co....	111 25
William Porter & Sons..	135 25
George H. Creed.....	122 50
S. H. Mills.....	130 00
Hyatt & Spencer.....	116 25
Joseph L. Savage.....	180 00

Class No. 59, linseed oil:

Joseph L. Savage.....	*940 00
David Babcock & Co....	970 00
William Porter & Sons..	1,150 00
George H. Creed.....	1,150 00
Judd Linseed and Sperm Oil Co.....	1,025 00
S. H. Mills.....	1,240 00
Hyatt & Spencer.....	1,250 00
Francis H. Smith.....	1,097 00

Class No. 71, stationery:

Devoe & Waterston.....	*227 01½
Dempsey & O'Toole.....	303 84
John M. Whittemore....	308 80

Class No. 74, acids:

Joseph L. Savage.....	*120 00
David Babcock & Co....	135 00
William Porter & Sons..	140 00
George H. Creed.....	180 00
S. H. Mills.....	180 00

Class No. 78, leather, pump,
rigging, lacing:

David Babcock & Co....	*171 25
William Porter & Sons..	235 75
George H. Creed.....	256 25
S. H. Mills.....	300 00
Joseph L. Savage.....	184 75

* Accepted.

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*
H. A. GOLDSBOROUGH, *Chief Clerk.*
WM. RICHMOND, *Clerk.*

NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869.

Offers to furnish materials for the navy under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Charlestown, Massachusetts.

Class No. 13, white-pine plank, boards.		Joseph L. Savage.....	\$557 00
		David Babcock & Co.....	611 10
		George H. Creed.....	671 00
Trickey & Jewett.....	*\$7,317 50	Class No. 38, iron, wrought nails:	
Joseph W. Duryee.....	8,863 00	Alonzo A. Foster.....	*145 50
S. P. Brown & Son.....	9,507 50	David Babcock & Co.....	221 00
James Bigler & Co.....	9,620 00	George H. Creed.....	183 00
David Babcock & Co....	10,117 50	Hyatt & Spencer.....	247 50
Class No. 15, white ash, elm, beech.		Joseph L. Savage.....	181 00
Trickey & Jewett.....	*1,260 00	Class No. 39, iron, cut nails:	
David Babcock & Co....	1,560 00	Alonzo A. Foster.....	*991 25
R. J. & W. Neely & Co..	1,594 00	David Babcock & Co....	1,035 40
James Bigler & Co.....	1,560 00	George H. Creed.....	1,183 00
Joseph W. Duryee.....	1,534 00	Hyatt & Spencer.....	1,080 13½
S. P. Brown & Son.....	1,768 00	Francis H. Smith.....	1,059 26
Watson & Pittinger....	2,054 00	Joseph L. Savage.....	1,042 80
Class No. 18, black walnut, mahogany, maple, cherry:		Class No. 42, lead—pipe, sheet:	
Trickey & Jewett.....	*2,635 00	Francis H. Smith.....	*1,995 00
David Babcock & Co....	4,770 00	David Babcock & Co....	2,375 00
James Bigler & Co.....	3,234 00	William Porter & Sons..	2,400 00
Joseph W. Duryee.....	3,465 00	George H. Creed.....	2,300 00
S. P. Brown & Son.....	4,587 00	Joseph L. Savage.....	2,175 00
Watson & Pittinger....	4,455 00	Class No. 43, zinc:	
F. A. Southmayd.....	†2,880 00	Francis H. Smith.....	*4,540 00
Class No. 22, cypress, cedar.		David Babcock & Co....	4,625 00
George T. Wallace.....	*950 00	William Porter & Sons..	4,595 00
Trickey & Jewett.....	975 00	George H. Creed.....	4,700 00
R. J. & W. Neely & Co..	1,197 00	Hyatt & Spencer.....	5,000 00
James Bigler & Co.....	1,216 00	Joseph L. Savage.....	4,687 50
Joseph L. Savage.....	1,197 00	Class No. 48, locks, hinges, bolts, of brass and iron.	
S. P. Brown & Son.....	1,401 00	Joseph L. Savage.....	*118 50
Watson & Pittinger....	1,475 00	David Babcock & Co....	194 15
David Babcock & Co....	2,660 00	George H. Creed.....	238 00
Class No. 32, wrought iron, round and square:		Hyatt & Spencer.....	272 21
Francis H. Smith.....	*1,730 50	A. A. Foster.....	174 00
David Babcock & Co....	1,827 50	Class No. 49, screws, of brass and iron:	
George H. Creed.....	1,765 00	David Babcock & Co....	*358 50
Joseph L. Savage.....	1,875 00	William Porter & Sons..	398 06
Class No. 33, wrought iron, flat:		George H. Creed.....	413 43
Joseph L. Savage.....	*690 00	S. H. Mills.....	512 70
George H. Creed.....	695 00	Hyatt & Spencer.....	432 47
Francis H. Smith.....	698 30	Alonzo A. Foster.....	492 08
David Babcock & Co....	855 00	Joseph L. Savage.....	426 00
Class No. 34, iron, plate:		Class No. 50, files:	
Joseph L. Savage.....	*2,254 65	Joseph L. Savage.....	*287 82½
Francis H. Smith.....	2,795 30	George H. Creed.....	301 82½
David Babcock & Co....	3,098 44	G. & H. Barnett.....	334 58½
Class No. 35, steel:		Hyatt & Spencer.....	331 06½
Baldwin & Livezey.....	*543 37½	Alonzo A. Foster.....	330 46½

* Accepted.

† Received too late.

Class No. 53, tools for use in yards and shops:

Joseph L. Savage	*\$468 15
David Babcock & Co ...	840 02
George H. Creed	477 22
Hyatt & Spencer	817 52
Alonzo A. Foster	732 70

Class No. 54, hardware:

Joseph L. Savage	*745 40
David Babcock & Co ...	813 40
William Porter & Sons..	875 45
George H. Creed	1,021 25
Hyatt & Spencer	926 40½
Alonzo A. Foster	893 00

Class No. 56, white lead:

Joseph L. Savage	*2,875 00
David Babcock & Co ...	3,200 00
William Porter & Sons..	3,281, 25
George H. Creed	2,975 00
S. H. Mills	3,750 00
Hyatt & Spencer	3,687 50
Francis H. Smith	3,172 50

Class No. 58, colored paints, dryers:

George H. Creed	*50 00
David Babcock & Co ...	53 00
William Porter & Sons..	70 30
S. H. Mills	63 00
Hyatt & Spencer	69 50
Francis H. Smith	62 10
Joseph L. Savage	54 80

Class No. 59, linseed oil:

Joseph L. Savage	*930 00
David Babcock & Co ...	950 00
William Porter & Sons..	1,125 00
George H. Creed	980 00
Judd Linseed and Sperm Oil Company	1,003 00
S. H. Mills	1,210 00
Hyatt & Spencer	1,250 00
Francis H. Smith	1,079 00

Class No. 60, varnish, spirits turpentine:

Joseph L. Savage	*212 50
David Babcock & Co ...	286 25
George H. Creed	244 00
S. H. Mills	495 00
Hyatt & Spencer	442 00
Francis H. Smith	410 00

Class No. 68, glass:

Joseph L. Savage	*116 50
David Babcock & Co ...	127 50
William Porter & Sons..	176 50
George H. Creed	140 50

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*
H. A. GOLDSBOROUGH, *Chief Clerk.*
WM. RICHMOND, *Clerk.*

S. H. Mills	\$216 00
Hyatt & Spencer	185 50
Francis H. Smith	160 50

Class No. 69, brushes:

Francis H. Smith	*438 25
David Babcock & Co ...	538 70
William Porter & Sons..	576 25
George H. Creed	440 00
E. Clinton & Co	675 80
Hyatt & Spencer	535 00
Joseph L. Savage	578 00

Class No. 70, dry goods, for upholstering:

David Babcock & Co ...	*65 45
George H. Creed	70 75
S. H. Mills	108 00
Joseph L. Savage	83 20

Class No. 71, stationery:

Devos & Waterston	*683 69
John M. Whittemore	710 08½
Dempsey & O'Toole	791 00

Class No. 73, ship chandlery:

Alonzo A. Foster	*328 75
David Babcock & Co ...	395 00
William Porter & Sons..	411 95
Joseph L. Savage	380 90

Class No. 74, acids:

David Babcock & Co ...	*967 50
William Porter & Sons..	1,102 50
George H. Creed	1,895 00
S. H. Mills	2,140 00
Joseph L. Savage	1,280 00

Class No. 75, rosin, pitch, crude turpentine:

Joseph L. Savage	*87 00
David Babcock & Co ...	123 00
William Porter & Sons..	115 50
George H. Creed	97 50
S. H. Mills	117 00
Francis H. Smith	126 90

Class No. 77, belting, packing:

Joseph L. Savage	*740 50
Francis H. Smith	951 90
David Babcock & Co ...	1,279 75
William Porter & Sons..	1,112 50
George H. Creed	1,005 50
S. H. Mills	1,495 00

Class No. 88, charcoal:

William Porter & Sons..	*561 00
David Babcock & Co ...	735 00
George H. Creed	825 00

* Accepted.

NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869.

Offers to furnish materials for the navy under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Brooklyn, New York.

Class No. 3, white-oak curved timber:

William M. Shakespear..	*\$11,850 00
William H. White	12,000 00
James Bigler & Co.....	14,450 00
George T. Wallace.....	13,500 00
Watson & Pittinger	14,100 00
Joseph L. Savage	14,400 00
S. P. Brown & Son	41,250 00

Class No. 7, yellow-pine logs:

James Bigler & Co.....	*10,968 75
Joseph W. Duryee	16,250 00
William H. White	11,750 00
George T. Wallace.....	11,250 00
William M. Shakespear..	14,500 00
S. P. Brown & Son	13,250 00
Watson & Pittinger	14,750 00
Joseph L. Savage	16,000 00
K. V. Whaley.....	12,250 00

Class No. 8, yellow-pine beams:

George T. Wallace	*2,162 50
James Bigler & Co.....	3,157 25
William H. White	3,460 00
William M. Shakespear..	3,416 75
S. P. Brown & Son.....	5,190 00
Watson & Pittinger	5,363 00
Joseph L. Savage	7,568 75
K. V. Whaley.....	2,724 75

Class No. 9, yellow-pine mast timber:

William H. White	*8,576 40
James Bigler & Co.....	19,092 70
George T. Wallace.....	11,741 50
William M. Shakespear..	14,702 40
S. P. Brown & Son.....	11,128 90
Watson & Pittinger	12,047 80
Joseph L. Savage	14,804 50
K. V. Whaley.....	13,273 00

Class No. 13, white-pine plank boards:

David Babcock & Co....	*12,385 00
James Bigler & Co.....	12,740 00
Joseph W. Duryee	13,128 00
S. P. Brown & Son.....	30,771 00
Watson & Pittinger	17,335 00
F. A. Southmayd.....	†12,300 00

Class No. 15, white ash, elm, beech:

Joseph W. Duryee	*867 00
David Babcock & Co....	1,020 00
R. J. & W. Neely & Co...	1,044 00
James Bigler & Co.....	1,020 00
S. P. Brown & Son.....	1,420 00

* Accepted.

Watson & Pittinger.....	\$1,258 00
F. A. Southmayd.....	†833 00

Class No. 16, white-ash oars:

David Babcock & Co....	*370 00
William Porter & Sons...	431 25
S. P. Brown & Son.....	1,260 00
Watson & Pittinger.....	700 00
F. A. Southmayd.....	†356 25

Class No. 18, black walnut, mahogany, maple, cherry:

James Bigler & Co.....	*1,287 00
David Babcock & Co....	1,820 00
Joseph W. Duryee	1,365 00
S. P. Brown & Son.....	1,722 00
Watson & Pittinger	2,340 00
F. A. Southmayd.....	†1,014 00

Class No. 23, black spruce:

David Babcock & Co....	*1,670 00
Joseph Wescott & Son ..	1,940 00
Joseph W. Duryee	1,960 00
S. P. Brown & Son.....	1,960 00
Watson & Pittinger.....	1,855 00

Class No. 24, white-oak staves and headings:

David Babcock & Co....	*1,200 00
Watson & Pittinger.....	2,160 00

Class No. 32, wrought iron, round and square:

George H. Creed.....	*5,793 75
Francis H. Smith	5,916 90
David Babcock & Co....	6,123 50

Class No. 33, wrought iron, flat:

Francis H. Smith	*1,705 00
David Babcock & Co....	1,877 50
George H. Creed	1,843 50

Class No. 34, iron, plate:

David Babcock & Co....	*678 00
George H. Creed.....	876 50
Francis H. Smith	706 50

Class No. 37, iron spikes:

George H. Creed.....	*1,087 50
David Babcock & Co....	1,132 50
Hyatt & Spencer	1,237 50
Francis H. Smith	1,136 20

Class No. 43, zinc:

George H. Creed.....	*870 00
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† Received too late.

David Babcock & Co....	\$890 00	William Porter & Sons..	\$6,300 00
William Porter & Sons..	900 00	George H. Creed.....	5,880 00
Hyatt & Spencer	975 00	Judd Linseed and Sperm	
Francis H. Smith	898 00	Oil Company	5,752 50
Class No. 48, locks, hinges,		S. H. Mills.....	7,200 00
bolts, of brass and iron:		Hyatt & Spencer.....	7,500 00
George H. Creed.....	*110 56	Francis H. Smith	6,083 40
David Babcock & Co....	137 85	Joseph L. Savage	5,460 00
Hyatt & Spencer.....	172 46	Class No. 60, varnish, spirits	
Alonzo A. Foster.....	124 20	turpentine:	
Class No. 49, screws of brass		S. H. Mills.....	*828 00
and iron:		David Babcock & Co....	1,023 80
Hyatt & Spencer.....	*1,230 15	William Porter & Sons..	1,029 00
David Babcock & Co....	1,251 00	George H. Creed.....	930 00
George H. Creed.....	1,257 25	Hyatt & Spencer.....	1,106 00
S. H. Mills.....	1,397 75	Francis H. Smith	1,069 20
Alonzo A. Foster.....	1,415 75	Joseph L. Savage	834 00
Class No. 53, tools for use in		Class No. 63, sperm and lard	
yards and shops:		oil:	
Alonzo A. Foster.....	*783 40	George H. Creed.....	*2,118 75
Hyatt & Spencer.....	931 87	David Babcock & Co....	2,260 00
George H. Creed.....	920 20	Judd Linseed and Sperm	
David Babcock & Co....	1,380 05	Oil Company	2,300 50
Class No. 54, hardware:		S. H. Mills.....	2,700 00
Hyatt & Spencer.....	*1,126 88	Hyatt & Spencer.....	2,457 50
David Babcock & Co....	1,257 80	Francis H. Smith	2,337 75
George H. Creed.....	1,248 75	Joseph L. Savage	2,255 00
Alonzo A. Foster.....	1,299 75	Class No. 64, tallow, soap:	
Class No. 56, white lead:		David Babcock & Co....	*265 00
Joseph L. Savage	*1,725 00	William Porter & Sons..	291 00
David Babcock & Co....	1,912 50	George H. Creed.....	290 00
William Porter & Sons..	1,875 00	S. H. Mills.....	330 00
George H. Creed.....	1,755 00	Alonzo A. Foster.....	269 00
S. H. Mills.....	2,130 00	Francis H. Smith	276 80
Hyatt & Spencer.....	2,212 50	Joseph L. Savage	284 00
Francis H. Smith	1,843 50	Class No. 68, glass:	
Class No. 57, zinc paints:		George H. Creed.....	*307 00
Francis H. Smith	*675 20	David Babcock & Co....	374 75
David Babcock & Co....	696 00	William Porter & Sons..	469 00
William Porter & Sons..	730 00	S. H. Mills.....	503 00
George H. Creed.....	712 00	Hyatt & Spencer	506 75
S. H. Mills.....	960 00	Francis H. Smith	411 20
Hyatt & Spencer.....	780 00	Class No. 69, brushes:	
Joseph L. Savage	840 00	David Babcock & Co....	*357 50
Class No. 58, colored paints,		William Porter & Sons..	541 90
driers:		George H. Creed.....	374 50
George H. Creed.....	*679 75	E. Clinton & Co.....	638 00
David Babcock & Co....	867 75	Hyatt & Spencer.....	561 08
William Porter & Sons..	1,007 25	Francis H. Smith	528 30
S. H. Mills.....	1,004 50	Class No. 71, stationery:	
Hyatt & Spencer.....	937 50	Devoe & Waterston.....	*441 45
Francis H. Smith	1,026 00	Cutter, Tower & Co....	490 60
Joseph L. Savage	937 00	Dempsey & O'Toole....	545 75
Class No. 59, linseed oil:		John M. Whittimore....	574 05
David Babcock & Co....	*5,370 00	Class No. 73, ship-chandlery:	
		George H. Creed.....	*405 90

*Accepted.

David Babcock & Co....	\$419 55	Francis H. Smith	\$626 40
William Porter & Sons..	414 27½	Joseph L. Savage	738 00
S. H. Mills	661 50		
Alonzo A. Foster	413 00		
Class No. 74, acids :		Class No. 80, junk :	
David Babcock & Co....	*63 75	David Babcock & Co....	*1,951 04
William Porter & Sons..	80 62½	William Porter & Sons..	2,262 00
George H. Creed	145 00	Francis H. Smith	2,184 00
S. H. Mills	130 00	Joseph L. Savage	2,470 00
Class No. 75, resin, pitch, crude turpentine:		Class No. 88, charcoal :	
S. H. Mills	*538 20	S. H. Mills	*270 00
David Babcock & Co....	558 00	David Babcock & Co....	420 00
William Porter & Sons..	576 00	William Porter & Sons..	398 40
George H. Creed	558 00	George H. Creed	486 00
William W. Gardiner....	720 00	Alonzo A. Foster	405 00
		Joseph L. Savage	354 00
		Edward Fox	†414 00

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*
H. A. GOLDSBOROUGH, *Chief Clerk.*
WM. RICHMOND, *Clerk.*

NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869.

Offers to furnish materials for the navy, under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Philadelphia, Pa.

Class No. 2, white oak keel pieces:		Class No. 8, yellow pine beams:	
William M. Shakespear..	*\$2,031 87	George T. Wallace	*\$987 50
James Bigler & Co.....	2,853 75	James Bigler & Co.....	1,441 75
George T. Wallace	2,739 60	William H. White	1,580 00
S. P. Brown & Son	3,310 35	William M. Shakespear..	1,560 25
Watson & Pittinger	2,146 02	S. P. Brown & Son	3,950 00
Joseph L. Savage	3,378 84	Watson & Pittinger	2,449 00
		Joseph L. Savage	3,456 25
		K. V. Whaley	1,244 25
Class No. 4, white oak plank :		Class No. 13, white pine plank boards:	
William M. Shakespear..	†*9,236 50	Joseph W. Duryee	*3,003 00
Watson & Pittinger	†9,236 50	David Babcock & Co....	3,290 00
David Babcock & Co....	14,608 75	James Bigler & Co.....	3,172 50
James Bigler & Co.....	13,949 00	S. P. Brown & Son	4,030 00
William H. White	15,080 00	Watson & Pittinger	3,695 00
George T. Wallace	12,252 50		
S. P. Brown & Son	15,798 00		
Class No. 7, yellow pine logs :		Class No. 15, white ash, elm, beech :	
James Bigler & Co.....	*6,142 50	R. J. & W. Neely & Co..	*942 00
Joseph W. Duryee	9,100 00	David Babcock & Co....	991 25
William H. White	6,580 00	Joseph W. Duryee	976 00
George T. Wallace	6,160 00	S. P. Brown & Son	991 25
William M. Shakespear..	7,840 00	Watson & Pittinger	1,128 50
S. P. Brown & Son	9,660 00		
Watson & Pittinger	8,260 00		
Joseph L. Savage	10,360 00		
K. V. Whaley	6,860 00	Class No. 23, black spruce:	
		S. P. Brown & Son	*792 00

* Accepted.

† Decided by lot.

David Babcock & Co....	\$1,440 00	Hyatt & Spencer.....	\$670 63½
Joseph Wescott & Son..	810 00	Alonzo A. Foster.....	760 50
Watson & Pittinger.....	1,062 00		
Class No. 32, wrought iron, round and square:		Class No. 50, files:	
Joseph L. Savage.....	*2,760 00	Hyatt & Spencer.....	*359 96
David Babcock & Co....	3,062 50	George H. Creed.....	419 75
George H. Creed.....	2,777 50	G. & H. Barnett.....	375 67
J. J. & G. Gillingham...	3,127 50	Paul J. Field.....	418 55
Paul J. Field.....	3,005 00	J. B. Shannon.....	421 63
Francis H. Smith.....	2,909 00	Alonzo A. Foster.....	388 15
Class No. 33, wrought iron, flat:		Class No. 51, augers:	
Francis H. Smith.....	*676 47	Alonzo A. Foster.....	*64 90
David Babcock & Co....	810 00	David Babcock & Co...	158 63
George H. Creed.....	690 93½	Paul J. Field.....	133 60
Class No. 35, steel:		J. B. Shannon.....	112 32
Baldwin & Livezey.....	*1,623 50	Hyatt & Spencer.....	139 71
David Babcock & Co....	1,804 94	Class No. 53, tools for use in yards and shops:	
George H. Creed.....	1,635 43½	David Babcock & Co....	*4,954 69
Joseph L. Savage.....	1,676 00	Paul J. Field.....	9,150 65
Class No. 39, iron cut nails:		Class No. 54, hardware:	
Paul J. Field.....	*669 75	David Babcock & Co....	*640 39
David Babcock & Co....	705 00	George H. Creed.....	701 20
George H. Creed.....	722 62½	Paul J. Field.....	675 45
J. B. Shannon.....	690 90	J. B. Shannon.....	702 16
Hyatt & Spencer.....	740 25	Hyatt & Spencer.....	711 03
Alonzo A. Foster.....	686 25	Alonzo A. Foster.....	698 70
Francis H. Smith.....	734 50	Class No. 58, colored paints, dryers:	
Joseph L. Savage.....	682 00	Eli S. Shorter.....	*627 20
Class No. 43, zinc:		David Babcock & Co....	720 75
George H. Creed.....	*895 00	William Porter & Sons..	699 50
David Babcock & Co....	940 00	George H. Creed.....	633 50
William Porter & Sons..	910 00	S. H. Mills.....	733 50
Paul J. Field.....	1,500 00	Hyatt & Spencer.....	837 25
Hyatt & Spencer.....	1,000 00	Francis H. Smith.....	681 62
Francis H. Smith.....	909 00	Class No. 60, varnish, spirits turpentine:	
Joseph L. Savage.....	937 50	Francis H. Smith.....	*1,179 25
Class No. 48, locks, hinges, bolts of brass and iron:		David Babcock & Co....	1,372 50
Alonzo A. Foster.....	*75 78	William Porter & Sons..	1,211 25
David Babcock & Co....	136 54	George H. Creed.....	1,317 50
George H. Creed.....	104 58	Eli S. Shorter.....	1,241 00
Paul J. Field.....	87 52	S. H. Mills.....	1,525 00
J. B. Shannon.....	79 20	Hyatt & Spencer.....	1,390 00
Hyatt & Spencer.....	127 56½	Class No. 63, sperm and lard oil:	
Class No. 49, screws of brass and iron:		George H. Creed.....	*1,106 00
William Porter & Sons..	*540 92	David Babcock & Co....	1,164 80
David Babcock & Co....	602 62	Judd Linseed and Sperm Oil Co.....	1,169 80
George H. Creed.....	675 60	Eli S. Shorter.....	1,254 00
S. H. Mills.....	756 10	S. H. Mills.....	1,364 00
Paul J. Field.....	753 35	Joseph L. Savage.....	1,114 00
J. B. Shannon.....	718 54	Francis H. Smith.....	1,206 40

* Accepted.

Class No. 64, tallow, soap :

Eli S. Shorter.....	*\$65 00
David Babcock & Co.....	77 00
William Porter & Sons..	96 65
George H. Creed.....	91 00
S. H. Mills.....	124 00
Joseph L. Savage.....	109 50

Class No. 68, glass :

George H. Creed.....	*379 05
David Babcock & Co.....	440 16
William Porter & Sons..	595 04
Eli S. Shorter.....	510 34½
S. H. Mills.....	632 75
Hyatt & Spencer.....	618 20
Francis H. Smith.....	457 95

Class No. 69, brushes :

E. Clinton & Co.....	*58 50
David Babcock & Co.....	90 55
William Porter & Sons..	59 21
George H. Creed.....	60 80
S. H. Mills.....	119 00
Hyatt & Spencer.....	90 35
Alonzo A. Foster.....	82 10
Joseph L. Savage.....	71 00

Class No. 71, stationery :

Devoe & Waterston.....	*563 24
Dempsey & O'Toole.....	633 25
John M. Whittemore.....	686 30

Class No. 73, ship-chandlery :

George H. Creed.....	*823 75
David Babcock & Co.....	1, 134 45

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*
H. A. GOLDSBOROUGH, *Chief Clerk.*
WM. RICHMOND, *Clerk.*

NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869.

William Porter & Sons..	\$1, 072 80
Eli S. Shorter.....	1, 048 55
S. H. Mills.....	1, 250 60
Paul J. Field.....	1, 201 25
Alonzo A. Foster.....	999 87½

Class No. 74, acids :

Eli S. Shorter.....	*208 00
David Babcock & Co.....	270 27
William Porter & Sons..	343 90
George H. Creed.....	658 40
S. H. Mills.....	470 80

Class No. 77, belting, packing :

Joseph L. Savage.....	*226 98
David Babcock & Co.....	361 28
William Porter & Sons..	299 56
George H. Creed.....	298 34
S. H. Mills.....	430 56
Paul J. Field.....	331 87
Francis H. Smith.....	257 10

Class No. 78, leather, pump, rigging, lacing :

David Babcock & Co.....	*35 25
William Porter & Sons..	54 95
George H. Creed.....	48 75
S. H. Mills.....	73 50
Paul J. Field.....	57 25
Joseph L. Savage.....	45 75

Class No. 88, charcoal :

William Porter & Sons..	*261 80
David Babcock & Co.....	350 00
George H. Creed.....	367 50
Paul J. Field.....	336 00
Joseph L. Savage.....	315 00

Offers to furnish materials for the navy under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Washington D. C.

Class No. 8, yellow pine beams :

George T. Wallace.....	*\$250 00
K. V. Whaley.....	325 00
William M. Shakespear..	445 00
S. P. Brown & Son.....	900 00
Watson & Pittinger.....	620 00
Joseph L. Savage.....	890 00
James E. Stewart.....	300 00

Class No. 9, yellow pine mast timber :

George T. Wallace.....	*624 00
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* Accepted.

William M. Shakespear..	\$962 00
S. P. Brown & Son.....	990 00
Watson & Pittinger.....	776 00
Joseph L. Savage.....	990 00
James E. Stewart.....	†496 80

Class No. 13, white pine plank, boards :

R. J. and W. Neely & Co.	*1, 970 00
David Babcock & Co.....	2, 615 00
John O. Evans & Co.....	2, 425 00
Joseph W. Durjee.....	2, 272 00
S. P. Brown & Son.....	2, 559 00

† Informal.

Watson & Pittinger.....	\$2,860 00	David Babcock & Co....	\$68 75
James E. Stewart.....	2,870 00	William Porter & Sons..	73 75
Class No. 15, white ash, elm, beech:		Class No. 44, tin:	
Joseph W. Duryee.....	*627 00	Francis H. Smith.....	*2,178 50
David Babcock & Co....	770 00	David Babcock & Co....	2,366 75
R. J. and W. Neely & Co.	695 00	William Porter & Sons..	2,367 35
John O. Evans & Co....	637 00	Hyatt & Spencer.....	2,646 25
S. P. Brown & Son.....	748 00	Joseph L. Savage.....	2,270 00
Watson & Pittenger....	726 00	Class No. 45, solder:	
James E. Stewart.....	880 00	Joseph L. Savage.....	*22 00
Class No. 17, hickory:		David Babcock & Co....	25 50
S. P. Brown & Son.....	*79 00	William Porter & Sons..	27 00
Watson & Pittinger....	498 00	Class No. 48, locks, hinges, bolts of brass and iron:	
Joseph L. Savage.....	600 00	David Babcock & Co....	*36 00
F. A. Southmayd.....	170 00	Joseph L. Savage.....	39 00
Class No. 18, black walnut, mahogany, maple, cherry:		Class No. 49, screws, of brass and iron:	
Joseph W. Duryee.....	*210 00	Joseph L. Savage.....	*317 10
David Babcock & Co....	280 00	David Babcock & Co....	318 35
John O. Evans & Co....	220 00	William Porter & Sons..	352 56
S. P. Brown & Son.....	278 00	S. H. Mills.....	359 50
Watson & Pittinger....	280 00	Hyatt & Spencer.....	336 54†
F. A. Southmayd.....	†166 00	Alonzo A. Foster.....	377 25
†Eldridge & Swain.....	.....	Class No. 50, files:	
Class No. 30, ingot copper:		Joseph L. Savage.....	*924 10
David Babcock & Co....	*42,680 76	G. & H. Barnett.....	1,020 81
William Porter & Sons..	45,707 50	Hyatt & Spencer.....	977 89
Revere Copper Company.	50,175 00	Class No. 51, augers:	
Francis H. Smith.....	47,992 93	Hyatt & Spencer.....	*143 98
Joseph L. Savage.....	45,651 00	David Babcock & Co....	165 60
Class No. 34, iron, plate:		Alonzo A. Foster.....	146 06†
Francis H. Smith.....	*185 00	Joseph L. Savage.....	190 00
David Babcock & Co....	187 00	Class No. 53, tools for use in yards and shops:	
William Porter & Sons..	192 50	Joseph L. Savage.....	*831 50
Joseph L. Savage.....	190 00	David Babcock & Co....	1,156 25
Class No. 37, iron spikes:		Hyatt & Spencer.....	1,041 50
Joseph L. Savage.....	*202 50	Alonzo A. Foster.....	1,014 20
David Babcock & Co....	227 50	Class No. 54, hardware:	
Hyatt & Spencer.....	233 75	Joseph L. Savage.....	*495 38
Class No. 39, iron cut nails:		David Babcock & Co....	496 93
Joseph L. Savage.....	*188 00	William Porter & Sons..	562 35
David Babcock & Co....	220 00	Hyatt & Spencer.....	506 91
Hyatt & Spencer.....	210 00	Alonzo A. Foster.....	498 35
Francis H. Smith.....	210 00	Class No. 56, white lead:	
Class No. 42, lead, pipe, sheet:		Joseph L. Savage.....	*960 00
Joseph L. Savage.....	*256 50	David Babcock & Co....	1,080 00
David Babcock & Co....	264 00	William Porter & Sons..	1,080 00
William Porter & Sons..	271 50	Eli S. Shorter.....	1,119 20
Class No. 43, zinc:		George Ryneal, jr.....	1,090 00
Joseph L. Savage.....	*62 50		

*Accepted.

†Informal.

‡Received too late.

S. H. Mills.....	\$1, 120 00	William Porter & Sons..	\$105 50
Hyatt & Spencer.....	1, 200 00	S. H. Mills.....	104 00
Francis H. Smith.....	1, 038 40		
Class No. 57, zinc paints:		Class No. 68, glass:	
Hyatt & Spencer.....	*330 00	Joseph L. Savage.....	*385 40
David Babcock & Co....	386 25	David Babcock & Co....	523 60
William Porter & Sons..	375 00	William Porter & Sons..	557 00
Eli S. Shorter.....	405 00	Eli S. Shorter.....	582 00
George Ryneal, jr.....	390 00	George Ryneal, jr.....	628 60
S. H. Mills.....	360 00	S. H. Mills.....	1, 591 00
Francis H. Smith.....	360 00	Francis H. Smith.....	489 90
Joseph L. Savage.....	345 00		
Class No. 58, colored paints, dryers:		Class No. 69, brushes:	
S. H. Mills.....	*1, 018 00	David Babcock & Co....	*9 50
David Babcock & Co....	1, 391 90	William Porter & Sons..	14 98
William Porter & Sons..	1, 428 25	S. H. Mills.....	18 00
George Ryneal, jr.....	1, 416 00	E. Clinton & Co.....	18 00
Hyatt & Spencer.....	1, 332 75	Hyatt & Spencer.....	12 00
Francis H. Smith.....	1, 499 90	Joseph L. Savage.....	10 00
Joseph L. Savage.....	1, 018 50		
Class No. 59, linseed oil:		Class No. 70, dry goods for upholstering:	
Joseph L. Savage.....	*920 00	S. H. Mills.....	*27 00
David Babcock & Co....	965 00	David Babcock & Co....	45 45
William Porter & Sons..	1, 125 00	Joseph L. Savage.....	48 05
Judd Linseed and Sperm Oil Company.....	1, 020 00		
Eli S. Shorter.....	1, 100 00	Class No. 71, stationery:	
George Ryneal, jr.....	1, 140 00	Devoe & Waterston....	*113 86
S. H. Mills.....	1, 200 00	Dempsey & O'Toole....	136 80
Hyatt & Spencer.....	1, 250 00		
Francis H. Smith.....	1, 084 40	Class No. 73, ship chandlery:	
Class No. 60, varnish, spirits turpentine:		Joseph L. Savage.....	*1, 907 90
David Babcock & Co....	256 90	David Babcock & Co....	2, 430 60
William Porter & Sons..	273 60		
Eli S. Shorter.....	275 00	Class No. 77, belting, packing:	
George Ryneal, jr.....	323 00	Joseph L. Savage.....	*527 94
S. H. Mills.....	365 00	David Babcock & Co....	822 91
Hyatt & Spencer.....	336 00	William Porter & Sons..	762 05
Francis H. Smith.....	341 80	S. H. Mills.....	819 65
Joseph L. Savage.....	258 00	Francis H. Smith.....	723 02
Class No. 63, sperm and lard oil:		Class No. 78, leather, pump, rigging, lacing:	
Joseph L. Savage.....	*210 00	Joseph L. Savage.....	*132 20
David Babcock & Co....	212 00	David Babcock & Co....	140 10
Judd Linseed & Sperm Oil Co.....	214 00	William Porter & Sons..	175 90
Eli S. Shorter.....	275 00	S. H. Mills.....	182 00
George Ryneal, jr.....	245 00		
S. H. Mills.....	240 00	Class No. 88, charcoal:	
Hyatt & Spencer.....	230 00	William T. Clarke.....	*920 00
Francis H. Smith.....	214 00	William Porter & Sons..	1, 920 00
Class No. 64, tallow, soap:		William Guinaud.....	940 00
Joseph L. Savage.....	*90 00	Henderson Fowler.....	1, 160 00
David Babcock & Co....	96 00	P. W. Dorsey.....	950 00
		Joseph L. Savage.....	960 00
		Class No. 89, wood:	
		William Guinaud.....	*938 00
		Henderson Fowler.....	1, 098 00
		Francis H. Smith.....	1, 366 00
		Joseph L. Savage.....	1, 050 00

* Accepted.

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*
H. A. GOLDSBOROUGH, *Chief Clerk.*
WILLIAM RICHMOND, *Clerk.*

NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869.

Offers to furnish materials for the navy under the advertisement of the Bureau of Construction and Repair of June 5, 1869, at the navy yard, Norfolk, Virginia.

Class No. 3, white oak curved timber :

Joshua L. Fentress.....	*\$1,320 00
William H. White	1,560 00
George T. Wallace	1,800 00
William M. Shakespear..	1,752 00
S. P. Brown & Son.....	4,800 00
Watson & Pittinger.....	2,256 00
Joseph L. Savage	2,304 00

Class No. 7, yellow pine logs :

R. J. & W. Neely & Co..	*3,250 00
Joshua L. Fentress.....	3,500 00
James Bigler & Co.....	4,387 50
Joseph W. Duryee	6,500 00
William H. White	3,400 00
George T. Wallace	3,300 00
William M. Shakespear..	5,700 00
S. P. Brown & Son.....	4,900 00
Watson & Pittinger.....	4,400 00
Joseph L. Savage	4,900 00
K. V. Whaley.....	4,900 00

Class No. 9, yellow pine mast timber :

William H. White.....	*893 20
R. J. & W. Neely & Co..	931 48
George T. Wallace	1,148 40
William M. Shakespear..	1,582 24
S. P. Brown & Son.....	1,212 20
Watson & Pittinger	1,199 44
Joseph L. Savage	1,850 20
K. V. Whaley.....	1,403 60

Class No. 12, white pine mast timber :

William M. Shakespear..	*867 00
S. P. Brown & Son	1,000 00
Watson & Pittinger.....	882 00
Joseph L. Savage	1,420 00

Class No. 13, white pine plank, boards :

Watson and Pittinger...	*4,720 00
David Babcock & Co.....	5,920 00
R. J. & W. Neely & Co..	4,804 00
James Bigler & Co.....	6,004 00
John O. Evans & Co.....	5,976 00
Joseph W. Duryee	5,714 00
S. P. Brown & Son.....	7,500 00

Class No. 15, white ash, elm, beech :

R. J. & W. Neely & Co..	*126 00
David Babcock & Co....	382 50
Joseph W. Duryee	168 00
S. P. Brown & Son.....	255 00
Watson & Pittinger	259 50

Class No. 18, black walnut, mahogany, maple, cherry :

Watson & Pittinger.....	*\$2,120 00
David Babcock & Co.....	2,693 40
R. J. & W. Neely & Co..	2,395 50
John O. Evans & Co....	2,498 50
Joseph W. Duryee	2,345 00
S. P. Brown & Son.....	3,095 00
F. A. Southmayd.....	†2,019 00

Class No. 23, black spruce :

Watson and Pittinger...	*1,666 00
David Babcock & Co.....	3,060 00
Joseph Westcott & Son..	1,934 00
Joseph W. Duryee	1,898 00
S. P. Brown & Son.....	2,258 00

Class No. 25, lignumvitæ :

David Babcock & Co....	*340 00
William Porter & Sons..	368 00
S. P. Brown & Son.....	600 00
Joseph L. Savage	484 00
F. A. Southmayd.....	†260 00

Class No. 32, wrought iron, round and square :

Joseph L. Savage	*2,205 40
David Babcock & Co.....	2,437 00
George H. Creed.....	2,399 10
Taylor, Martin & Co.....	2,540 00
Francis H. Smith	2,306 56

Class No. 33, wrought iron, flat :

Joseph L. Savage	*720 25
David Babcock & Co.....	1,085 30
George H. Creed.....	823 45
Taylor, Martin & Co.....	1,060 40
Francis H. Smith	776 00

Class No. 39, iron cut nails :

Joseph L. Savage	†*14 00
David Babcock & Co.....	14 00
George H. Creed.....	15 50
Taylor, Martin & Co	17 00
Hyatt & Spencer	23 50
Alonzo A. Foster.....	15 50

Class No. 48, locks, hinges, bolts of brass and iron :

Joseph L. Savage	*206 75
David Babcock & Co.....	249 10
William Porter & Sons..	261 00
George H. Creed	239 00
Taylor, Martin & Co.....	277 50
Hyatt & Spencer	335 70
Alonzo A. Foster.....	217 26

* Accepted.

† Received too late.

‡ Decided by lot.

Class No. 49, screws of brass and iron :

Joseph L. Savage	*\$27 90
David Babcock & Co.....	38 60
William Porter & Sons..	33 00
George H. Creed.....	34 50
S. H. Mills	37 50
Taylor, Martin & Co....	41 60
Hyatt & Spencer	36 80
Alonzo A. Foster.....	33 20

Class No. 50, files :

Joseph L. Savage	*187 50
George H. Creed.....	226 90
G. & H. Barnet.....	209 77
Taylor, Martin & Co....	217 50
Hyatt & Spencer	199 03
Alonzo A. Foster.....	206 09

Class No. 52, tools for ships' stores :

George H. Creed	*74 00
David Babcock & Co.....	211 00
S. H. Mills	420 00
Taylor, Martin & Co....	201 00
Hyatt & Spencer	264 00
Alonzo A. Foster.....	162 00
Joseph L. Savage	132 00

Class No. 53, tools for use in yards and shops :

George H. Creed	*797 50
David Babcock & Co.....	1,615 85
Taylor, Martin & Co....	1,137 50
Hyatt & Spencer	977 20
Alonzo A. Foster.....	810 04
Joseph L. Savage	823 88

Class No. 54, hardware :

George H. Creed	*504 65
David Babcock & Co.....	614 31
Taylor, Martin & Co....	651 50
Hyatt & Spencer	957 88
Alonzo A. Foster.....	803 78
Joseph L. Savage	657 25

Class No. 58, colored paints, dryers :

Joseph L. Savage	*69 00
David Babcock & Co....	110 75
William Porter & Sons..	118 50
George H. Creed.....	93 00
S. H. Mills	127 00
Hyatt & Spencer	112 50
Francis H. Smith.....	85 62½

Class No. 59, linseed oil :

Joseph L. Savage.....	*1,930 00
David Babcock & Co....	2,000 00
William Porter & Sons..	2,295 00
George H. Creed	2,020 00

Judd Linseed and Sperm Oil Company	\$2,092 50
S. H. Mills.....	2,600 00
Hyatt & Spencer	2,560 00
Francis H. Smith	2,200 00

Class No. 60, varnish, spirits turpentine :

S. H. Mills.....	*307 50
David Babcock & Co....	320 50
William Porter & Sons..	320 50
George H. Creed	339 00
Hyatt & Spencer	372 50
Francis H. Smith	328 00
Joseph L. Savage	309 50

Class No. 63, sperm and lard oil :

Joseph L. Savage	*352 00
David Babcock & Co....	390 00
George H. Creed	355 00
Judd Linseed and Sperm Oil Company	358 50
S. H. Mills	416 00
Hyatt & Spencer.....	395 00
Francis H. Smith	377 00

Class No. 69, brushes :

George H. Creed	*172 50
David Babcock & Co....	213 00
William Porter & Sons..	219 67
S. H. Mills.....	327 00
E. Clinton & Co.....	237 10
Taylor, Martin & Co....	230 00
Hyatt & Spencer	215 06
Alonzo A. Foster.....	182 50
Francis H. Smith	198 50
Joseph L. Savage	209 80

Class No. 70, dry goods for upholstery :

Joseph L. Savage.....	*174 35
David Babcock & Co....	200 35
S. H. Mills.....	188 00
Taylor, Martin & Co....	178 10

Class No. 71, stationery :

Dempsey & O'Toole.....	*320 49
Devos & Waterston.....	371 05
John M. Whittemore....	395 55

Class No. 73, ship chandlery :

George H. Creed.....	*193 40
David Babcock & Co....	434 50
S. H. Mills.....	493 00
Taylor, Martin & Co....	293 00
Alonzo A. Foster.....	247 00
Joseph L. Savage	210 95

Class No. 75, rosin, pitch, crude turpentine :

Joseph L. Savage	*195 00
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* Accepted.

David Babcock & Co.....	\$315 00	Class No. 78, leather, pump,	
William Porter & Sons..	266 25	rigging, lacing :	
George H. Creed	225 00		
S. H. Mills.....	277 50	Joseph L. Savage.....	†\$229 32
Taylor, Martin & Co.....	300 00	Taylor, Martin & Co.....	1229 32
Francis H. Smith	295 50	David Babcock & Co.....	248 04
		William Porter & Sons..	276 12
Class No. 77, belting, packing:		George H. Creed.....	243 36
George H. Creed	*7 00	S. H. Mills.....	327 60
David Babcock & Co.....	12 00		
S. H. Mills.....	16 00	Class No. 89, wood :	
Taylor, Martin & Co	20 00		
Joseph L. Savage.....	12 00	Taylor, Martin & Co....	*49 00

* Accepted.

† Decided by lot.

Opened in presence of—

JOHN LENTHALL, *Chief of Bureau.*H. A. GOLDSBOROUGH, *Chief Clerk.*WM. RICHMOND, *Clerk.*NAVY DEPARTMENT, *Bureau of Construction and Repair,*
Washington, D. C., July 6, 1869

BUREAU OF STEAM ENGINEERING.

NAVY DEPARTMENT,

Bureau of Steam Engineering, November 3, 1869.

SIR: I was appointed to take charge of this bureau March 17, 1869, at which date seventeen wooden ships had returned from sea and were laid up at the various navy yards, their machinery unfit for service, two only of this number being under repairs, viz., the Juniata, at the Philadelphia navy yard, and the Lancaster, at the navy yard, Norfolk. Of the sea-going iron-clads not one was in a condition to be sent immediately to sea. The machinery of a large number of the vessels in the several squadrons was also reported as requiring repairs more or less extensive. Many of these vessels have since returned home.

All work in the navy yards pertaining to keeping the machinery of vessels in a fit condition for service, except on the Juniata and Lancaster, had been for some time suspended, and all vessels were being laid up in the condition in which they returned. In point of fact, there was not a sufficient number of men employed in the engineering department of any of the yards to prevent the machinery from deteriorating. Had this state of affairs continued, it is evident that the machinery of all the vessels then at the navy yards, and of other vessels returning from active service and laid up, would have become totally disabled.

The appropriation for the bureau for the fiscal year 1869-'70 was only \$650,000, while the unexpended balance of previous appropriations was very small, making the available means of the bureau for the remaining portion of the fiscal year 1868-'69, and for the fiscal year 1869-'70, about \$800,000. From this amount it was the intention of my predecessor to pay for machinery being constructed under contracts made during the war and not yet completed, viz., one pair of engines known as the 100-inch diameter of cylinders, and boilers for the same; one pair of engines known as the 60 by 36-inch cylinders, with accompanying boilers—these engines and boilers were being built by the Corliss Steam Engine Works, at Providence, Rhode Island. Messrs. John

Boach & Son, of the Morgan Iron Works, of New York, were building three sets of engines and boilers of the 60 by 36-inch cylinder class, and D. McLeod, esq., of the South Brooklyn Iron Works, one set of engines and boilers of the same class. Upon the completion of these engines and boilers according to the terms of the several contracts there would have been due the builders \$424,068. There were also being built, under contract with several parties, machinery and tools for the various navy yards, on which, upon completion of the work, there would be due \$345,992, making an aggregate of \$770,060 for engines, boilers, tools, &c. Out of the funds of the bureau this left only \$30,000 available for the repairs of machinery of vessels on foreign stations and at the yards, the purchase of oil, stores, tools, &c., and for the pay of the mechanics and laborers employed in the engineering departments of the several yards.

With these facts before me the attention of the bureau was first directed toward obtaining information as to what progress had been made in the work under contract, the amount to be done, what payments, if any, were due, and the best disposition that could be made of the machinery. With these objects in view the department ordered a board of officers to visit the establishments of the several contractors and to report, in accordance with instructions, whatever information on the above points it obtained. Upon the reception of the report of this board it was determined, under instructions from the department, to stop all further work on the engines and boilers, remove them from the workshops of the contractors in their then unfinished condition to the navy yards, cancel the contracts, and settle with the contractors. This course was adopted, first, for the reason that none of these engines or boilers were needed or likely to be for a long time. Second, the money that would be required to meet the future payments on these contracts could be more advantageously used in making necessary repairs to machinery already afloat. The sum of \$259,068 40 was found to be due on this machinery when work was ordered to be suspended, upon deciding to pay which the contracts were settled and cancelled, and the machinery removed to the navy yards, at a cost of \$15,475. This left an unexpended balance from this source of \$149,524 60, to be devoted to the more immediate and pressing necessities of the service.

In relation to the tools building for the several navy yards that had been contracted for previous to the 4th of March, 1869, it was decided by the department to allow the contractors to complete and deliver them, but the payments to be deferred until Congress should make the necessary appropriations therefor. With the funds rendered available by cancelling the contracts for machinery and deferring the payments on tools, the bureau proceeded with all due vigor to repair the machinery of vessels laid up, and of others ordered to be prepared for service.

Since the date referred to at the beginning of this report, fifteen vessels have returned from the different squadrons and been placed under repairs on the Atlantic coast, and four at Mare Island, on the Pacific coast, making thirty-six in all undergoing repairs at this time in the various navy yards. In addition to these, the machinery of nine iron-clads and also of seven new vessels, which were in an advanced state, has been completed ready for sea. Of the vessels under repairs, nine have had their boilers condemned and removed and new ones ordered to be placed on board, while extensive repairs have been and are being made to their machinery.

The steam power of the frigate Colorado has been increased by the addition of two extra boilers, selected from those in store, and two aux-

iliary boilers, also selected from those on hand, are being prepared for each of the frigates *Minnesota* and *Wabash*, while their engines are being thoroughly refitted and repaired.

Three of the four iron-clads now on the stocks at the navy yards, viz., the *Colossus*, at New York, the *Massachusetts*, at Portsmouth, New Hampshire, and the *Oregon*, at Boston, have been received in an unfinished condition, and the contractors settled with. It is estimated that an expenditure of \$70,000 will be required to complete the machinery of each of these vessels. In the case of the fourth, the *Nebraska*, at the Philadelphia navy yard, the contractors for her machinery—Messrs. Pusey, Jones & Co., of Wilmington, Delaware—will have unsettled claims amounting to \$40,000, should it be decided to carry their contract to completion.

It is reasonably certain that a large number of the vessels on foreign stations will also require new boilers and extensive repairs to their machinery on their arrival home.

By order of the department four of the eight boilers of the *Tennessee* (formerly the *Madawasca*) have been removed, and orders have been given to remove four of the eight boilers from the *Florida*, (formerly the *Wampanoag*), for the purpose of affording additional room for the storage of coal and stores, and for the better accommodation of the crew.

By order of the department the four-bladed screw propellers have been removed from the *Severn*, *Guerriere*, *Pensacola*, *Ossipee*, *Ticonderoga*, *Shenandoah*, *Nantasket*, *Swatara*, *Resaca*, *Congress*, *California*, *Tennessee*, *Nipsic*, and *Kansas*, and instead thereof two-bladed screws were substituted in all except the *Severn*, to which vessel a Mangin screw was applied. These changes were made with a view of increasing the efficiency of the vessels under sail, reserving the reduced steam power to be used in entering and leaving port and in calms. The trial of the Mangin screw as applied to the *Severn* having proved unsatisfactory, it has been removed and a two-bladed screw put on.

In view of the decreased amount of work performed in the navy yards, resulting from the reduction of the hours of labor from ten to eight under the recent act of Congress, and the difficulty of procuring skilled and reliable workmen at some of the yards, the bureau entered into contract with Messrs. Merrick & Sons, of Philadelphia, for the complete repair of the machinery of the *Brooklyn* and its erection on board the ship. In its decision of this matter the bureau was also controlled to some extent by the desire to have a practical test as to whether the repairs to the machinery of naval vessels could not be made in less time and at less cost by well-known reputable engine establishments than if done in the government workshops, especially where, as in this case, the repairs are extensive.

It will be found to be true economy to place the machinery of every naval vessel in complete order, and at all times to maintain it in that condition ready for any emergency.

All the navy yards, except the *Pensacola* yard, have been visited by the chief of the bureau, the engineering department of each inspected, and the vessels under repairs examined. This became necessary in order to obtain a knowledge of the facilities for doing work at each yard, and of the manner in which the several departments were being conducted.

The usual yearly contracts for supplies for the engineering department of the navy were not made during the fiscal year 1868-69, nor has any been made for the present fiscal year, in consequence of the smallness of the appropriation. The consumption has been restricted wherever pos-

sible, and, with some necessary purchases, the supplies left from previous years have thus far sufficed.

The estimates for the next fiscal year will be found in the accompanying papers, marked A, B, and C. These estimates are the lowest for which the necessary operations of the bureau can be performed, and include no provision for extraordinary contingencies, nor do they include any provision for the deficiency needed to carry on the work until July 1, 1870.

I have the honor to be, sir, your obedient servant,

J. W. KING,

Chief of the Bureau of Steam Engineering.

Hon. GEO. M. ROBESON,

Secretary of the Navy.

A.—Estimate of the amount required for the civil expenses of the Bureau of Steam Engineering for the fiscal year ending June 30, 1871, as per acts of July 5, 1862, July 23, 1866, and March 2, 1867.

For salary of chief clerk, act of July 5, 1862, (section 3).....	\$1,800 00
For salary of one third-class clerk, act of July 23, 1866, (section 8).....	1,600 00
For salary of one second-class clerk, act of March 2, 1867.....	1,400 00
For salary of one draughtsman, act of July 5, 1862, (section 3,) and act of March 2, 1867.....	1,800 00
For salary of one assistant draughtsman, act of July 5, 1862.....	1,200 00
For salary of one messenger, act of July 5, 1862, (section 3,) act of June 25, 1864, (section 3,) and act of July 23, 1866.....	840 00
For salary of one laborer, act of July 5, 1862, (section 3,) act of June 25, 1864, (section 3,) and act of July 23, 1866.....	720 00
For contingent expenses.....	800 00
For amount submitted as increase of salary of chief clerk.....	400 00
For amount submitted as increase of salary of messenger.....	160 00
	<hr/>
	10,720 00
	<hr/>
Appropriation for the fiscal year ending June 30, 1870.....	7,240 00
	<hr/>

B.—Estimate of the pay of civil officers, under the cognizance of the Bureau of Steam Engineering, at navy yards and stations for the fiscal year ending June 30, 1871.

PORTSMOUTH, NEW HAMPSHIRE.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

CHARLESTOWN, MASSACHUSETTS.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

BROOKLYN.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

PHILADELPHIA.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

WASHINGTON.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

NORFOLK.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

PENSACOLA.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

MARE ISLAND.

For salary of one draughtsman.....	\$1,600 00
For salary of clerk to chief engineer.....	1,400 00
For salary of store clerk.....	1,400 00
For salary of time clerk.....	1,200 00
	<hr/>
	5,600 00
	<hr/>

RECAPITULATION.

Civil officers at navy yard, Portsmouth, New Hampshire.....	\$5,600 00
Civil officers at navy yard, Charlestown.....	5,600 00
Civil officers at navy yard, Brooklyn.....	5,600 00
Civil officers at navy yard, Philadelphia.....	5,600 00
Civil officers at navy yard, Washington.....	5,600 00
Civil officers at navy yard, Norfolk.....	5,600 00
Civil officers at navy yard, Pensacola.....	5,600 00
Civil officers at navy yard, Mare Island.....	5,600 00
Total.....	<hr/>
	44,800 00
	<hr/>
Appropriation for the fiscal year ending June 30, 1870.....	24,000 00
	<hr/>

C.—Estimate of the amount required by the Bureau of Steam Engineering for the fiscal year ending June 30, 1871.

For repairs of machinery of steamers, boilers, instruments, tools, labor, transportation, materials, stores, &c.....	\$1,750,000 00
Appropriation for the fiscal year ending June 30, 1870	650,000 00

RECAPITULATION.

Heads.	Estimate of appropriations required for the fiscal year ending June 30, 1871.	Appropriations for the fiscal year ending June 30, 1870.
A.—Salaries and contingent expenses of the bureau for 1870-71.....	\$10,730 00	\$7,240 00
B.—Pay of civil officers of navy yards for the fiscal year 1870-71.....	44,800 00	24,000 00
C.—Estimate of the amount required for the fiscal year 1870-71	1,750,000 00	650,000 00
Total	1,805,530 00	681,240 00

BUREAU OF PROVISIONS AND CLOTHING.

BUREAU OF PROVISIONS AND CLOTHING,
Washington, November 1, 1869.

SIR: I have the honor to submit, in compliance with instructions, estimates marked A, B, C, and D, and schedules and statement marked E, F, and G, for the fiscal year ending June 30, 1871. No estimate is made for clothing, as the balance on hand is considered sufficient for the next fiscal year.

I deem it proper to renew the recommendation of my predecessor in office for an increase of the salaries of the clerks to paymasters of navy yards and stations, and to paymasters and inspectors in charge of provisions and clothing at navy yards and stations, so as to place them, in regard to pay, on an equality with other clerks in navy yards, whose duties are not more arduous or responsible than theirs.

The recent order of the department requiring semi-monthly, instead of monthly payments, to the mechanics and others employed in navy yards, has greatly increased the labor of paymasters' clerks.

The policy, and indeed justice of supplying sailors, on their enlistment in the navy, with an outfit of clothing, free of cost to them, has been before so forcibly represented to the department, that I only deem it necessary to allude to it. The necessity of making some provision of this kind for the sailor is daily becoming more apparent, and I most earnestly recommend the measure to the favorable consideration of the department, as one well calculated to promote the best interests of the navy.

It is proposed to issue to the crews of vessels on some of our foreign stations coffee in the berry, in lieu of the ground coffee generally in use in the navy. But as coffee, in the process of roasting, loses considerably in weight, I would suggest that the ration of coffee, when issued in the unroasted berry, be increased to one and one-fourth ounces; the ration of ground coffee being one ounce per day for each person. Coffee

roasters, it is believed, can be attached to the galleys of vessels with but little expense.

Very respectfully, your obedient servant,

EDWARD T. DUNN,
Chief of Bureau.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

A.—Estimate of the expenses of the Bureau of Provisions and Clothing for the fiscal year ending June 30, 1871.

For salary of chief of bureau, (act of July 5, 1862, sec. 2).....	\$3,500 00
For salary of chief clerk, (act of July 5, 1862, sec. 3).....	1,800 00
For salary of one clerk of class four, (act of July 5, 1862, sec. 8).....	1,800 00
For salary of two clerks of class three, (act of July 5, 1862, sec. 8).....	3,200 00
For salary of two clerks of class two, (act of July 5, 1862, sec. 8).....	2,800 00
For salary of three clerks of class one, (act of July 5, 1862, sec. 8).....	3,600 00
For salary of one messenger, (act of March 3, 1869).....	840 00
For salary of one laborer, (act of March 3, 1869).....	720 00
For amount submitted as increase of salary of chief clerk.....	400 00
	<u>18,660 00</u>
Appropriated for the fiscal year ending June 30, 1870.....	<u>\$14,640 00</u>

The salary of the chief of the bureau was not embraced in the estimate for the fiscal year ending June 30, 1870.

Contingent.

For blank books, stationery, and miscellaneous items.....	\$1,200 00
Appropriated for the fiscal year ending June 30, 1870.....	<u>\$800 00</u>

B.—Estimate from the Bureau of Provisions and Clothing for provisions for the navy for the fiscal year ending June 30, 1871, including the balance which it is estimated will be on hand July 1, 1870.

One ration per day for 12,000 men, would be, for the year, 4,380,000 rations, at 40 cents.....	\$1,752,000 00
One ration per day for 1,200 commissioned and warrant officers attached to vessels for sea service, would be, for the year, 438,000 rations, at 40 cents.....	175,200 00
One ration per day for 1,200 officers and marines attached to vessels for sea service, would be, for the year, 438,000 rations, at 40 cents.....	175,200 00
To be added for the commutation of the spirit ration for 14,400 officers, non-commissioned officers, men and marines, for the year, at five cents per day, as per act of Congress of July 14, 1862.....	262,800 00
For purchase of water for ships.....	40,000 00
	<u>2,405,200 00</u>
Deduct amount of balance estimated will be on hand July 1, 1870.....	1,000,000 00
Amount asked for.....	<u>1,405,200 00</u>
Appropriated for the fiscal year ending June 30, 1870.....	<u>\$1,500,000 00</u>

C.—Estimate from the Bureau of Provisions and Clothing for contingent, for the fiscal year ending June 30, 1871.

For freight and transportation to foreign and home stations; for candles; for fuel; for interior alterations and fixtures in inspection buildings; for tools and repairing same at eight inspections; for special watchmen in eight inspections; for books and blanks; for stationery; for telegrams, postages, and express charges; for tolls, ferriages, and car-tickets; for ice; and for incidental labor not chargeable to other appropriations.....	\$100,000 00
Amount appropriated for the fiscal year ending June 30, 1870.....	<u>75,000 00</u>

D.—Estimate of the pay of civil officers and others under the cognizance of the Bureau of Provisions and Clothing at the navy yards and stations, for the fiscal year ending June 30, 1871.

KITTYRY.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,000 00
For amount submitted as increase of salary of clerk.....	500 00

Civil.

For clerk to inspector of provisions and clothing.....	1,000 00
For amount submitted as increase of salary of clerk.....	500 00
	<u>3,000 00</u>

CHARLESTOWN.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For one writer.....	1,017 25

Civil.

For clerk to inspector of provisions and clothing.....	1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For one writer.....	1,017 25
	<u>5,034 50</u>

BROOKLYN.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For two writers, at \$1,017 25 each.....	2,034 50

Civil.

For one assistant inspector of provisions and clothing.....	1,878 00
For clerk to inspector of provisions and clothing.....	1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For two writers, at \$1,017 25 each.....	2,034 50
For one assistant superintendent of mills.....	939 00
	<u>9,886 00</u>

PHILADELPHIA.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For one writer.....	1,017 25

Civil.

For clerk to inspector of provisions and clothing.....	1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For one writer.....	1,017 25
For paymaster's assistant at naval asylum.....	1,000 00
For amount submitted as increase of salary of paymaster's assistant at naval asylum.....	200 00
	<u>6,234 50</u>

WASHINGTON.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,200 00
For amount submitted as increase of salary of clerk.....	300 00
For one writer.....	1,017 25

Civil.

For clerk to inspector of provisions and clothing.....	1,000 00
For amount submitted as increase of salary of clerk.....	500 00
	<u>4,017 25</u>

NORFOLK.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,000 00
For amount submitted as increase of salary of clerk.....	500 00
For one writer.....	1,017 25

Civil.

For clerk to inspector of provisions and clothing.....	1,000 00
For amount submitted as increase of salary of clerk.....	500 00
For one writer.....	1,017 25
	<u>5,034 50</u>

PENSACOLA.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,000 00
For amount submitted as increase of salary of clerk.....	500 00

Civil.

For clerk to inspector of provisions and clothing.....	1,000 00
For amount submitted as increase of salary of clerk.....	500 00
	<u>3,000 00</u>

MARE ISLAND.

Naval.

For clerk to paymaster and inspector of provisions and clothing, (act of July 14, 1862).....	\$1,500 00
For one writer.....	1,017 25

Civil.

For one writer	\$1,095 50
	<u>3,612 75</u>

MOUND CITY.

Naval.

For clerk to paymaster, (act of May 26, 1864).....	\$1,000 00
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Civil.

For one writer	1,017 25
	<u>2,017 25</u>

RECAPITULATION.

Kittery.....	\$3,000 00
Charlestown.....	5,034 50
Brooklyn.....	9,886 00
Philadelphia.....	6,234 50
Washington.....	4,017 25
Norfolk.....	5,034 50
Pensacola.....	3,000 00
Mare Island.....	3,612 75
Mound City.....	2,017 25
	<u>41,836 75</u>

E.—Schedule of proposals for clothing and clothing materials received under advertisement dated March 25, 1869.

Name.	Residence.	50,000 yards blue flannel.	30,000 pairs woolen socks.	10,000 pairs calf shoes.
		<i>Per yard.</i>	<i>Per pair.</i>	<i>Per pair.</i>
E. R. Dibble.....	Myatie, Conn.....	\$0.6075		
Nichols, Whittle & Co.....	Philadelphia, Pa.....		\$0.39	
Benedict Hall & Co.....	New York, N. Y.....			\$2.96
P. H. Smith.....	New York, N. Y.....	.5984	.4264	2.98
A. C. Lamson & Co.....	New York, N. Y.....	.612	.412	
John Freeman*.....	Orange, N. J.....			2.83
R. A. Francis.....	New York, N. Y.....		.435	
William Mathews*.....	New York, N. Y.....	.597	.393	

* Contract awarded.

NAVY DEPARTMENT, Bureau of Provisions and Clothing.

F.—Schedule of proposals for fresh beef and vegetables, received by the Bureau of Provisions and Clothing, for the fiscal year ending June 30, 1869.

Name.	Date of advertisement.	Where to be delivered.	Price per pound.	
			Beef.	Vegetables.
Kimberly Brothers*.....	July 25, 1868	Norfolk, Va.....	\$0.14	\$0.05
Henry K. Kimberly.....	July 25, 1868	Norfolk, Va.....	.159	.04
G. H. Spanliding*.....	Jan. 11, 1869	Boston, Mass.....	.1175	.025
Bradford & Gary.....	Jan. 11, 1869	Boston, Mass.....	.145	.02
C. & J. Flanders.....	Jan. 11, 1869	Boston, Mass.....	.14	.03
L. & J. Hanley*.....	Jan. 11, 1869	New York, N. Y.....	.1380	.0335
John Walsh.....	Jan. 11, 1869	New York, N. Y.....	.1296	.047
L. S. Boraef*.....	June 21, 1869	Philadelphia, Pa.....	.14	.04

* Bid accepted.

NAVY DEPARTMENT, Bureau of Provisions and Clothing.

G.—Statement of contracts made by the Bureau of Provisions and Clothing, for and in behalf of the Navy Department, during the fiscal year ending June 30, 1869.

Name.	Date.	Articles contracted for.	Price.	Where to be delivered.
Kimberly Brothers....	Aug. 10, 1868	40,000 lbs. fresh beef.....	\$0.14 per lb..	Norfolk, Va.
Kimberly Brothers....	Aug. 10, 1869	40,000 lbs. fresh vegetables..	.05 per lb..	Norfolk, Va.
L. & J. Hanley.....	Feb. 10, 1869	200,000 lbs. fresh beef.....	.138 per lb..	New York, N. Y.
L. & J. Hanley.....	Feb. 10, 1869	200,000 lbs. fresh vegetables..	.0335 per lb..	New York, N. Y.
G. H. Spaulding.....	Feb. 11, 1869	50,000 lbs. fresh beef.....	.1175 per lb..	Boston, Mass.
G. H. Spaulding.....	Feb. 11, 1869	50,000 lbs. fresh vegetables..	.025 per lb..	Boston, Mass.
William Mathews.....	May 6, 1869	50,000 yards blue flannel.....	.587 per yd.	New York, N. Y.
William Mathews.....	May 6, 1869	30,000 pairs woolen socks.....	.393 per pr.	New York, N. Y.
John Freeman.....	May 6, 1869	10,000 pairs calf shoes.....	2.83 per pr.	New York, N. Y.

NAVY DEPARTMENT, *Bureau of Provisions and Clothing.*

BUREAU OF MEDICINE AND SURGERY.

NAVY DEPARTMENT,
Bureau of Medicine and Surgery, November 6, 1869.

SIR: I have the honor to submit the following report, together with estimates of the amount required for the Bureau of Medicine and Surgery for the fiscal year ending June 30, 1871.

The estimates presented include the necessary cost of supplying the civil force, and the furniture for two new hospitals now in process of construction, one at Annapolis, Maryland, and the other at Mare Island, California; both of which will be completed within the fiscal year ending June 30, 1871.

In March, 1867, the last appropriations were made for "surgeons' necessities and appliances," and for "contingent." Up to the present time the unexpended balances under those appropriations have been sufficient for the demands upon them, and will continue to meet the wants for the current fiscal year, although a larger demand is made upon the appropriation "surgeons' necessities and appliances," by the recent practice of furnishing the officers' families with medicines and medical attendance.

Pursuing the system heretofore adopted of per-capita estimates, and assuming the number to be employed during the term covered by the estimates to be twelve thousand, an appropriation will be required of seventy-two thousand dollars, upon the basis of an expenditure of six dollars per man, for all causes involving the disbursement of the funds of this bureau.

I submit tabular statements of sick, &c., compiled from the reports of sick from the different naval stations within the United States, and from vessels on home and foreign service, for the year ending December 31, 1868:

Statement of sick, compiled from reports of sick from the naval stations in the United States, and from vessels in commission on home and foreign stations, for the year ending December 31, 1868.

HOSPITALS.		Remaining sick December 31, 1867.	Admitted in 1868.	Discharged in 1868.	Died in 1868.	Total treated in 1868.	Remaining sick December 31, 1868.	Percentage of deaths to whole number of cases treated.
Chelsea.....	34	179	203	9	213	19		
New York.....	101	382	373	16	483	52		
Philadelphia.....	32	140	117	18	172	24		
Annapolis.....	11	1,179	1,173	2	1,190	10		
Washington.....	39	94	111	4	133	24		
Norfolk.....	32	222	220	7	254	12		
Pensacola.....	7	107	95	2	114	3		
Total.....	256	2,303	2,292	58	2,559	144		.0227
NAVY YARDS.								
Portsmouth, New Hampshire.....	13	333	340	3	346	4		
Boston.....	5	247	272	0	252	2		
New York.....	15	412	421	1	427	2		
Philadelphia.....	4	175	179	0	179	0		
Washington.....	11	548	548	2	559	9		
Norfolk.....	12	380	386	1	392	12		
Mound City, Illinois.....	5	268	270	0	273	3		
Mare Island, California.....	18	147	129	8	165	19		
Naval Observatory.....	5	36	44	0	41	7		
Pensacola.....	2	152	153	1	154	0		
Total.....	90	2,698	2,742	16	2,768	58		.0057

RECKIVING SHIPS.		Average No. on board during the year 1868.	Remaining sick December 31, 1867.	Admitted in 1868.	Discharged in 1868.	Died in 1868.	Total treated in 1868.	Remaining sick December 31, 1868.	Percentage of deaths to whole number of cases treated.
Portsmouth, New Hampshire.....	362	5	22	26	0	27	3		
Boston.....	370	17	348	361	0	365	4		
New York.....	677	15	373	330	4	382	9		
Philadelphia.....	178	7	145	152	0	152	2		
Baltimore.....	137	0	19	17	2	19	0		
Norfolk.....	170	10	306	310	1	316	6		
Mound City, Illinois.....	23	4	28	31	1	32	0		
Mare Island, California.....	265	1	60	58	1	61	9		
Total.....	2,182	59	1,301	1,285	9	1,360	33		.0066

Summary of vessels in commission at sea, 1868.

Average number on board during the year 1868.....	13,310
Remaining sick December 31, 1867.....	295
Admitted in 1868.....	10,155
Discharged in 1868.....	10,137
Died in 1868.....	106
Total treated in 1868.....	10,450
Remaining sick December 31, 1868.....	207
Percentage of cases to number of persons on board.....	0.78
Percentage of deaths to number of persons on board.....	0.007
Percentage of deaths to number of cases treated.....	0.01

RECAPITULATION.

	Aggregate No. of officers and men on board vessels in 1868.	Remaining sick December 31, 1867.	Admitted in 1868.	Discharged in 1868.	Died in 1868.	Total treated in 1868.	Remaining sick December 31, 1868.	Proportion of cases to number of persons on board.	Proportion of deaths to whole number of persons on board.	Percentage of deaths to whole number of persons treated.
Hospitals		256	2,303	2,292	58	2,559	144			.0227
Navy yards		90	2,698	2,742	16	2,788	58			.0037
Receiving ships...	2,182	56	1,301	1,285	9	1,360	33	.62	.004	.0066
Vessels in commission at sea...	13,310	295	10,155	10,137	106	10,450	207	.78	.037	.01
Total	15,492	700	16,157	16,456	189	17,157	442	1.1	.012	.011

At the close of the year 1867 there remained under treatment 700 cases; during the year 1868 there occurred 16,457 cases of disease, injury, &c., making a total of 17,157 cases treated during the year, of which number 189 died, 16,456 were returned to duty or discharged the service, leaving 442 cases under treatment at the end of the year 1868.

The average strength of the navy (officers, seamen, marines, engineer service, and coast survey included) for the year 1868, as nearly as can be ascertained, was about 15,492.

The proportion of cases admitted to the whole number of persons in the service was about 1.1; or each person was on the sick list $1\frac{1}{10}$ times during the year. The proportion of deaths to the whole number in the service was .012, and the percentage of deaths to the whole number of cases is .011, or less than two per cent.

The total number of deaths from all causes, reported at the Navy Department, from October 1, 1868, to September 30, 1869, is 203.

Summary of prevalent forms of disease on home and foreign service for the year ending December 31, 1894.

Squadrons.	Aggregate number of men.	Febrile disease.		Diseases of digestive system.		Diseases of respiratory system.		Diseases of circulatory system.		Diseases of brain and nervous system.		Diseases of cutaneous and cellular system.		Diseases of fibrous, osseous, and muscular system.		Diseases of serous and absorbent system.		Diseases of genito-urinary organs.		Malingerers and deserters.		Diseases of the eye and ear.		Wounds and injuries.		Total.	
		Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.	Cases treated.	Deaths.
North Atlantic...	200	753	18	312	1	100	1	13	...	73	1	175	...	91	...	1	...	124	...	23	...	35	...	106	...	1,896	21
South Atlantic...	1,223	135	...	255	...	77	...	28	...	53	...	169	...	94	...	1	...	90	...	12	...	21	...	228	...	1,160	3
European...	1,401	97	9	112	1	199	1	12	2	32	2	78	...	80	...	1	...	125	...	10	...	21	...	125	2	1,791	10
North Pacific...	1,787	184	10	213	2	148	2	45	...	56	...	267	...	136	...	...	...	143	...	10	...	30	...	264	3	1,467	17
South Pacific...	1,250	118	2	161	1	109	5	10	...	33	3	116	...	113	1	...	...	151	...	1	...	28	...	223	1	1,063	13
Asiatic...	2,746	343	11	677	3	331	21	20	1	103	...	318	...	259	...	3	...	485	...	47	...	58	...	397	1	3,051	37
Special service...	836	28	1	36	...	34	2	3	...	11	...	21	...	26	...	...	...	21	...	6	...	1	...	40	...	227	3
School and practice ships...	1,742	102	...	132	...	121	1	4	1	47	...	104	...	69	...	1	...	48	...	5	...	15	...	101	...	749	2
Coast survey...	45	8	...	14	...	2	...	...	...	...	...	2	...	2	...	...	...	12	...	...	...	1	...	5	...	46	...
Total...	13,310	1,768	44	1,913	9	1,021	34	105	4	407	6	1,250	...	870	1	7	...	1,209	...	114	...	210	...	1,577	8	10,450	106

The foregoing tabular statements are based upon the reports of sick from all naval stations and vessels during the year.

Reports of 74 vessels, with an aggregate of 15,492 officers and men, are on file in this office for the year 1868.

INSANE OF THE NAVY.

On the 30th of September, 1868, there remained under treatment in the Government Asylum for the Insane, near this city:

6 officers, 5 seamen, 4 landsmen, 3 mariues, 1 beneficiary, and 1 late seaman. Total 20

During the year ending September 30, 1869, there were admitted:
1 officer, 1 seaman, 1 coal-heaver, 1 first-class boy, 2 marines, 3 beneficiaries, and 1 late passed midshipman. Total..... 10

Total number under treatment during the year..... 30

The discharges in the course of the year were:

By recovery, 1 officer; by improvement, 1 officer and 1 marine; by death, 1 officer, 1 seaman, 1 marine, and 1 late passed midshipman. Total 7

Leaving in the institution on the 30th September, 1869:

4 officers, 5 seamen, 4 landsmen, 1 coal-heaver, 1 first-class boy, 3 marines, 4 beneficiaries, and 1 late seaman. Total 23

NAVAL HOSPITAL FUND.

The condition of this fund is represented as follows:

Balance on hand October 1, 1868	\$434, 500 98
Transferred to the fund by the Fourth Auditor, in settlement of accounts, &c., from October 1, 1868, to October 1, 1869	124, 214 52
Transferred to the fund on account of supplies from the naval laboratory to vessels and navy yards, from October 1, 1868, to October 1, 1869	25, 291 39
	<hr/> 584, 006 89
Deduct amount expended from October 1, 1868, to October 1, 1869	155, 181 64
Balance on hand October 1, 1869	<hr/> 428, 825 25

NAVAL HOSPITALS.

Portsmouth, New Hampshire.—The sick quarters at this place, together with the medical store-room now in process of erection, at a cost of \$500, will answer the wants of the sick on this station.

During the month of June ultimo it was deemed advisable by the department to transfer the quarantine hospital buildings, located on Seavey's Island, to Wood Island, in Portsmouth Harbor, and to build a new kitchen for the hospital. The work was accomplished at a cost of \$2,352.

Chelsea, Massachusetts.—During the year a building in which to treat contagious diseases has been erected on the grounds attached to the

hospital, which will accommodate twenty-five patients with their necessary attendants.

The work of laying out the cemetery has also been completed, and the roads leading to it from the hospital have been thoroughly repaired.

The farm at this establishment is rapidly becoming excellent and profitable, and during the past season yielded, besides a considerable quantity of the ordinary garden vegetables, thirty tons of hay, one hundred bushels of oats, and six hundred bushels of potatoes.

For the necessary repairs of all kinds for the fiscal year ending June 30, 1871, there will be required \$8,000.

New York.—During the year the laundry attached to this hospital, the steam boiler in the kitchen, the steam boiler for heating the building, the floor of the mess-room, and the floor of the main balconies, have been placed in thorough repair.

The cemetery grounds, walls, &c., attached to this hospital are in a condition discreditable to a government establishment; hence negotiations are now being made that will properly define the limits of the land owned by the United States, and its claim to the land so defined clearly established, when a fence sufficient for the proper protection of the cemetery will be erected so as to include all the land fit for such purposes. The marshy land excluded by this arrangement will be carefully surveyed and measured.

The walls of the hospital, copings, terraces, &c., require renovation, as a precaution against early decay; for this purpose and for the necessary repairs of all kinds there will be required \$10,000.

Philadelphia, Pennsylvania.—At this place a stable and an ice-house have been built. The roadways around the hospital have been laid out and graveled, and the grounds placed in a finished condition.

The surgeon's house has also been repaired.

The walls of the main-entrance hall, corridors, wash-room, &c., on the lower floor of the hospital, require to be painted, as well as the floors of the basement corridors; for which, together with the necessary repairs of all kinds, there will be required \$3,800.

Annapolis, Maryland.—For the outfit of this establishment when completed, and for the necessary grading, fencing, &c., there will be required \$10,000.

Washington, D. C.—The wards, halls, stairways, and heating apparatus of this hospital have been thoroughly repaired, and the buildings and grounds are in good condition.

The unexpended balance under appropriation "Naval hospital, Washington, D. C.," will answer all demands of this establishment for the fiscal year ending June 30, 1871.

Norfolk, Virginia.—A new bath-house bridge has been built, the roof of the hospital repaired, and the wards plastered.

For the necessary repairs of all kinds to this hospital and its appurtenances there will be required \$7,500.

Pensacola, Florida.—The temporary buildings used for hospital purposes at this station continue to answer all requirements.

Mare Island, California.—For the necessary outfit of this establishment when completed, and for fencing, sodding, roadways, &c., there will be required \$10,000.

NAVAL LABORATORY, NEW YORK.

For the current repairs to this establishment and its appurtenances, and for the purchase and repair of machinery, apparatus, furniture, &c., there will be required \$8,500.

I regret to report that the medical corps of the navy, in a corps of 200, has 52 vacancies—only one out of 53 resignations having been filled; and few young medical men capable of passing the moderate examinations of the examining board are applying for the service.

What appear to me to be the causes of the difficulty, and the means of removing it, I will have the honor to make the subject of a special report.

Very respectfully, your obedient servant,

WM. M. WOOD, *Chief of Bureau.*

HON. GEORGE M. ROBESON,
Secretary of the Navy.

A.—Estimates of appropriations, under the cognizance of the Bureau of Medicine and Surgery for the support of said bureau, required for the service of the fiscal year ending June 30, 1871.

	Estimate of appropriations required for the service of the fiscal year ending June 30, 1871.	Appropriations for the fiscal year ending June 30, 1870.
For salary of chief of bureau, per act of July 5, 1862, Statutes at Large, second session, thirty-seventh Congress, section 2, page 510	\$3,500 00	\$3,500 00
For salary of one clerk, per act of July 23, 1866	1,200 00	1,200 00
For salary of one clerk, per act of July 23, 1866	1,600 00	1,600 00
For salary of one messenger, per act of March 3, 1869, Statutes at Large, third session, fortieth Congress, page 287	840 00	840 00
For salary of one laborer, per act of March 3, 1869, Statutes at Large, third session, fortieth Congress, page 287	720 00	600 00
	8,460 00	8,340 00
CONTINGENT EXPENSES.		
Blankets, stationery, and miscellaneous items	600 00	400 00
Total	9,060 00	8,740 00

B.—Estimate of appropriations, under the cognizance of the Bureau of Medicine and Surgery, required for the service of the fiscal year ending June 30, 1871.

Heads or titles of appropriations.	Estimates of appropriations required for the service of the fiscal year ending June 30, 1871.	Appropriations for the fiscal year ending June 30, 1870.
SURGEONS' NECESSARIES AND APPLIANCES.		
For the support of the medical department of vessels in commission, navy yards, naval stations, marine corps, coast survey, and the families of officers on shore stations—twelve thousand men, at \$6 per man	\$72,000 00	.....
CONTINGENT.		
For the medical department	40,000 00	.....
Total	112,000 00	.....

C.—*Estimate of pay of employes at naval hospitals and dispensaries of navy yards for the fiscal year ending June 30, 1871, included in the appropriation "Civil Establishment," Bureau of Medicine and Surgery.*

HOSPITALS.

BOSTON, MASSACHUSETTS.

1 apothecary, first class.....	\$750 00
1 apothecary, second class.....	480 00
1 matron	360 00
1 chief cook	240 00
1 cook	168 00
1 engineer	600 00
2 firemen, at \$360 each	720 00
1 gardener	300 00
2 laborers, at \$240 each	480 00
3 washers, at \$168 each	504 00
1 farmer	480 00
1 messenger	240 00
3 nurses, at \$240 each	720 00
1 gate-keeper	300 00
4 watchmen, at \$360 each	1,440 00
Total.....	7,782 00

NEW YORK.

2 apothecaries, first class, at \$750 each	\$1,500 00
1 apothecary, second class	480 00
1 carpenter	600 00
1 matron	480 00
1 chief cook	240 00
2 assistant cooks, at \$160 each	320 00
1 kitchen man (scullion).....	160 00
1 engineer	720 00
3 firemen, at \$360 each	1,080 00
1 gardener	480 00
4 laborers, at \$240 each	960 00
4 laundresses, chambermaids, &c., at \$144 each	576 00
1 laundryman	180 00
1 messenger	240 00
4 nurses, at \$240 each	960 00
1 painter and glazier	480 00
1 porter, (main entrance gate-keeper)	360 00
1 porter, (rear entrance gate-keeper)	240 00
1 watchman, for general police duty	420 00
1 messman, for patients	240 00
4 assistant messmen, for all messes, at \$180 each	720 00
2 watchmen, at \$300 each	600 00
1 ambulance driver	360 00
Total	12,396 00

These estimates are somewhat enlarged, because legitimate employes are named and estimated for, instead of their duties being done indirectly, at a greater charge upon the treasury.

NAVAL LABORATORY, NEW YORK.

1 manufacturer	\$800 00
1 assistant to manufacturer	300 00
1 chief packer	800 00
4 assistant packers, at \$300 each	1,200 00
1 engineer	800 00
1 fireman	350 00
1 shipping porter	500 00
1 porter	350 00
1 clerk	800 00
Total	5,900 00

PHILADELPHIA.

1 apothecary, first class	750 00
1 apothecary, second class	480 00
1 matron	360 00
1 engineer	600 00
1 carpenter	360 00
1 watchman	360 00
2 firemen, at \$360 each	720 00
1 messenger	240 00
3 nurses, at \$240 each	720 00
1 chief cook	240 00
1 assistant cook	168 00
2 laborers, at \$240 each	480 00
4 washers and scrubbers, at \$168 each	672 00
1 gardener	300 00
1 additional laborer, for stable keeper and ambulance driver	240 00
Total	6,690 00

ANNAPOLIS, MARYLAND.

2 apothecaries, first class, at \$750 each	\$1,500 00
3 nurses, at \$180 each	540 00
1 messenger	240 00
2 laborers, at \$144 each	288 00
2 washers, at \$144 each	288 00
2 cooks, at \$168 each	336 00
1 engineer	600 00
1 fireman	360 00
1 watchman	360 00
Total	4,512 00

WASHINGTON, D. C.

1 apothecary, first class	\$750 00
1 apothecary, second class	480 00
1 watchman, for general police duty	420 00
3 nurses, at \$240 each	720 00
2 cooks, at \$168 each	336 00
2 laborers, at \$144 each	288 00
1 messenger	144 00
3 washers, at \$144 each	432 00
1 watchman	300 00
1 engineer	480 00
2 firemen, at \$360 each	720 00
Total	5,070 00

NORFOLK, VIRGINIA.

1 apothecary, first class	\$750 00
1 engineer	720 00
1 gardener	360 00
1 chief cook	300 00
1 assistant cook	240 00
2 mess-room attendants, at \$168 each	336 00
2 nurses, at \$240 each	480 00
2 assistant nurses, at \$168 each	336 00
2 laundresses, at \$144 each	288 00
2 laborers, at \$192 each	384 00
4 boatmen, at \$168 each	672 00
2 watchmen, at \$300 each	600 00
Total	5,466 00

PENSACOLA, FLORIDA.

1 apothecary, first class.....	\$750 00
1 apothecary, second class.....	480 00
4 nurses, at \$264 each.....	1,056 00
4 assistant nurses, at \$216 each.....	864 00
1 cook.....	240 00
1 assistant cook.....	216 00
1 watchman.....	216 00
2 mess-room attendants, at \$168 each.....	336 00
2 washers, at \$180 each.....	360 00
1 messenger.....	144 00
3 laborers, at \$144 each.....	432 00
Total.....	5,094 00

MARE ISLAND, CALIFORNIA.

1 apothecary, first class.....	\$1,000 00
1 cook.....	540 00
1 cook.....	480 00
4 nurses, at \$480 each.....	1,920 00
4 washers, at \$480 each.....	1,920 00
2 laborers, at \$360 each.....	720 00
1 watchman.....	360 00
2 mess-room attendants, at \$216 each.....	432 00
1 engineer.....	1,000 00
1 fireman.....	500 00
Total.....	8,872 00

NAVY YARDS.

PORTSMOUTH, NEW HAMPSHIRE.

1 apothecary, first class.....	\$750 00
1 nurse.....	180 00
1 laborer.....	180 00
1 cook.....	180 00
Total.....	1,290 00

BOSTON, MASSACHUSETTS.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total.....	1,480 00

NEW YORK.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total.....	1,480 00

PHILADELPHIA, PENNSYLVANIA.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total.....	1,480 00

WASHINGTON, D. C.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total.....	1,480 00

NORFOLK, VIRGINIA.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total	<u>1,480 00</u>

NAVAL STATION, MOUND CITY, ILLINOIS.

1 apothecary, first class.....	\$750 00
1 laborer, at \$2 per day.....	730 00
Total	<u>1,480 00</u>

D.

For necessary repairs of naval laboratory, naval hospitals and appendages, including roads, wharves, out-houses, steam-heating apparatus, sidewalks, fences, gardens, farms, plumbers' and masons' work, painting, glazing, &c., and for outfits of the naval hospitals at Annapolis, Maryland, and Mare Island, California, when completed.....	<u>\$57,800 00</u>
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RECAPITULATION OF ESTIMATES.

For support of the Bureau of Medicine and Surgery, (Schedule A).....	\$9,060 00
For the support of the medical department, ashore and afloat, exclusive of hospitals, (Schedule B).....	112,000 00
For the pay of attendants, &c., of hospitals, and dispensaries of navy yards, (Schedule C).....	71,952 00
For the necessary repairs and improvements of naval laboratory and naval hospitals, (Schedule D).....	57,800 00
Total	<u>250,812 00</u>

WILLIAM M. WOOD,
Chief of Bureau.

MARINE CORPS.

HEADQUARTERS MARINE CORPS,
Washington, October 26, 1869.

SIR: It gives me pleasure to report to the department that during the past year the various duties assigned to the officers and enlisted men of the marine corps have been so performed as to meet the approbation of the officers in command of our several naval stations, and also, so far as I have learned, on board our vessels in commission.

The troops at the several stations have been twice inspected during the year. Once by the adjutant and inspector of the corps in June last, and recently by myself; and on both occasions they were found in a high state of efficiency and discipline, and the barracks and public property under their charge in the usual good condition.

The general return of the corps, which is transmitted herewith, shows that at the present time there are about twenty-three hundred enlisted men in service. Of this number about one thousand are on board our vessels in commission, and the remainder on shore at the several naval stations.

The number of men at the principal stations, I regard as much too small for the performance of the duties required of them, and at the same time to supply the details for service afloat; and in my judgment the public interests require that there should be at least one hundred additional privates at each of the navy yards at Boston, New York, and Philadelphia, and at the headquarters of the corps. On two or three occasions during the present year the marines at Philadelphia and New York were called upon to aid the civil authorities in enforcing obedience to the laws, which duty was performed with promptness and efficiency. The men at the several stations are always fully equipped, and ever held in readiness for immediate service, and as the troops of the regular army are required for service at the South and West, it is presumed the marine corps will be again called upon, in any future emergency of this character. For this reason alone, if none other existed, two full and efficient companies of men should always be available at each of the yards named. The headquarters of the corps, being the school of instruction for the young officers and recruits entering the service, should at all times have a full battalion of men fit for duty, otherwise the military instruction of officers and men must necessarily be imperfect.

The barracks at headquarters have undergone a most thorough repair during the past summer, and are now in better condition than they have been for the past forty years. In their repair the utmost economy has been observed, much of the labor having been performed by the enlisted men, and the entire superintendence and direction of the work under the control of the commanding officer of the post, Brevet Lieutenant Colonel Heywood, who deserves great credit for his unremitting attention to this duty, as well as for the good judgment displayed in making repairs where most required.

The quarters are not now what they should be, yet with ordinary attention, will be comfortable and pleasant abodes for the troops for many years to come.

The marines at the Norfolk station are still quartered on board the dismantled frigate St. Lawrence, which, as a temporary provision, affords them very good accommodation; but in my judgment the efficiency and soldierly bearing of the men, as well as their social and physical comfort, would be much improved by their being quartered on shore, within a sufficient space for a parade ground, for their exclusive use. As this navy yard is again becoming one of the principal naval depots, I would respectfully renew my recommendation that Congress be asked to authorize the construction of a barracks at this station, capable of accommodating four hundred men, either within the yard itself, or contiguous thereto, as the department might deem best.

The quarters of the men at the navy yard at Pensacola are very temporary, and unsuited for the purpose, and should it be the intention of the department to restore this yard to its former condition, I would also recommend the reconstruction of the barracks on the old site, which is a most excellent one for the purpose. The quarters at the other stations are in good repair, and will require but ordinary attention to keep them so.

The estimates for the support of the corps for the coming fiscal year, are based upon the same number of men as estimated for last year. The amount required for the paymaster's department is therefore about the same as that of last year, while the estimates for the quartermaster's department show a reduction of \$112,561 90 in consequence of a reduction of the price of provisions and clothing.

In all public expenditures during the past year, I am satisfied the utmost economy has been observed.

I am, very respectfully, your obedient servant,

J. ZEILIN,

Brigadier General and Commandant.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

HEADQUARTERS MARINE CORPS,

Paymaster's Office, September 7, 1869.

SIR: I inclose herewith estimates for the pay and subsistence of officers, and pay of non-commissioned officers, musicians, privates, &c., of the United States marine corps for the fiscal year ending June 30, 1871.

The only change from those submitted last year, is the reduction of \$1,578, being the pay of one retired officer, deceased.

I am, very respectfully, your obedient servant,

J. C. CASH,

Paymaster Marine Corps.

Brigadier General JACOB ZEILIN,
Commandant United States Marine Corps, Headquarters.

Detail estimate of pay and subsistence of officers, and pay of non-commissioned officers, musicians, privates, &c., of the United States marine corps from July 1, 1870, to June 30, 1871.

Rank and grade.	Number.	Pay per month.	PAY.		SUBSISTENCE.		Aggregate.
			Number of servants, at \$11.50 per month.	Total.	Number of rations, at 30 cents per ration.	Total.	
Brigadier general, commandant	1	124	3	\$2,622 00	24	\$2,628 00	\$5,250 00
Colonel	1	110	2	2,076 00	6	657 00	2,733 00
Colonel, retired	1	110		1,320 00	4	438 00	1,758 00
Lieutenant colonel	2	95	2	3,792 00	5	1,095 00	4,887 00
Lieutenant colonel, retired	1	95		1,140 00	4	438 00	1,578 00
Major	4	80	2	6,864 00	4	1,752 00	8,616 00
Major, retired	2	80		1,920 00	4	876 00	2,796 00
Adjutant and inspector, paymaster and quartermaster	3	80	2	5,148 00	4	1,314 00	6,462 00
Assistant quartermaster	2	70	1	2,436 00	4	876 00	3,312 00
Captain	20	70	1	24,360 00	4	8,760 00	33,120 00
Captain, retired	1	60		720 00			720 00
First lieutenant	30	50	1	29,340 00	4	13,140 00	42,480 00
Second lieutenant	30	45	1	27,540 00	4	13,140 00	40,680 00
Second lieutenant, retired	1	45		540 00	4	438 00	978 00
Sergeant major	1	30		360 00			360 00
Quartermaster sergeant and drum major	2	24		576 00			576 00
Leader of the band	1	75		900 00			900 00
Orderly sergeant	50	26		15,600 00			15,600 00
Sergeant, first enlistment	70	20		16,800 00			16,800 00
Sergeant, second enlistment	70	22		18,480 00			18,480 00
Corporal, first enlistment	90	18		19,440 00			19,440 00
Corporal, second enlistment	90	20		21,600 00			21,600 00
Musicians of the band	30			9,492 00			9,492 00
Drummers and fifers	96	16		18,432 00			18,432 00
Privates, first enlistment	1,500	16		24,000 00			24,000 00
Privates, second enlistment	500	18		10,000 00			10,000 00
Clerks to brigadier general commandant, adjutant and inspector, paymaster and quartermaster	9			12,599 64			12,599 64
Messenger at headquarters	1			971 28			971 28
Clerk and messenger in assistant quartermaster's office, Philadelphia	2			1,576 25			1,576 25
Hospital steward	1			750 00			750 00
Additional rations to officers for five years' service					160	17,520 00	17,520 00
Undrawn clothing						25,000 00	25,000 00
Total				643,395 17		88,072 00	731,467 17

Respectfully submitted.

J. C. CASH,
Paymaster Marine Corps.

HEADQUARTERS MARINE CORPS,
PAYMASTER'S OFFICE, September 7, 1869.

HEADQUARTERS MARINE CORPS, Quartermaster's Office, Washington, September 14, 1869.

SIR: I have the honor to transmit herewith triplicate estimates for the support of the quartermaster's department, United States Marine Corps, for one year from July 1, 1870, to June 30, 1871, amounting to \$329,160 70.

The aggregate amount of these estimates is \$112,561 90 less than the estimates submitted last year, and is believed to be as low as the necessities of the service will admit of.

They differ from the estimates of last year, as follows, viz :

Provisions, less than last year.....	\$20,680 90
Clothing, less than last year.....	79,425 00
Fuel, less than last year.....	456 00
Military stores, less than last year.....	2,000 00
Transportation, &c., less than last year.....	2,000 00
Repair of barracks, less than last year.....	3,000 00
Contingencies, less than last year.....	5,000 00
Making.....	112,561 90

The large decrease in the amount asked for clothing is based upon a supposed unexpended balance to the credit of that appropriation at the close of the present fiscal year, and in provisions by estimating for 1,400 enlisted men instead of 1,500, and placing the cost per ration at 26 instead of 28 cents.

I am, sir, very respectfully, your obedient servant,

W. B. SLACK,
Quartermaster Marine Corps.

Brigadier General J. ZEILIN,
Commandant Marine Corps, Headquarters, Washington.

Estimate of the expenses of the quartermaster's department of the Marine Corps, for one year from July 1, 1870, to June 30, 1871.

There will be required for the support of the quartermaster's department of the Marine Corps, for one year, commencing on the 1st July, 1870, in addition to the balances then remaining on hand, the sum of \$329,160 70, viz :

For provisions.....	\$135,991 70
For clothing.....	50,000 00
For fuel.....	26,169 00
For military stores, viz., pay of mechanics, repair of arms, purchase of accoutrements, ordnance stores, flags, drums, fifes, and other instruments.....	10,000 00
For transportation of officers, their servants, troops, and for expenses of recruiting.....	20,000 00
For repair of barracks and rent of offices, where there are no public buildings.....	12,000 00
For contingencies, viz: freight, ferriage, toll, cartage, wharfage, purchase and repair of boats, compensation to judges advocate, per diem for attending courts-martial and courts of inquiry, and for constant labor, house rent in lieu of quarters and commutation for quarters to officers on ship board, burial of deceased marines, printing, stationery, postage, telegraphing, apprehension of deserters, oil, candles, gas, repair of gas and water fixtures, water rent, forage, straw, barrack-furniture, furniture for officers' quarters, and for staff and commanding officers' offices, bed-sacks, wrapping-paper, oil-cloth, crash, rope, twine, spades, shovels, axes, picks, carpenters' tools, keep of a horse for the messenger, repairs to fire-engines, purchase and repair of engine hose, purchase of lumber for benches, mess tables, bunks, &c., repairs to public carryall, purchase and repair of harness, purchase and repair of hand-carts and wheel-barrows, scavenging, purchase and repair of galleys, cooking stoves, ranges, &c., stoves where there are no grates, gravel, &c., for parade grounds, repair of pumps, brushes, brooms, buckets, paving, and for other purposes.....	75,000 00
Amount.....	329,160 70

Respectfully submitted,

W. B. SLACK,
Quartermaster Marine Corps.

PROVISIONS.

For whom required.	Enlisted men.	Washerwomen.	Total.	Rations at 26 cents per day.	Amount.
Non-commissioned officers, musicians, privates and washerwomen.....	1,400	33	1,433	1	\$135,991 70
Amount required.....					\$135,991 70

CLOTHING.

For whom required.	Enlisted men.	Amount.
Non-commissioned officers, musicians, and privates, at \$46 28 per annum, actual cost per contract 1869-70.....	2,500	\$115,700 00
1,200 watch coats at \$11 71 each.....		14,052 00
		129,752 00
Deduct supposed amount on hand June 30, 1870.....		79,752 00
Amount required.....		50,000 00

FUEL.

For whom required.	No.	Cords.	Feet.	Cords.	Feet.
Brigadier general commandant.....	1	33	.....	33	.....
Colonels.....	1	33	.....	33	.....
Lieutenant colonels.....	2	29	4	59	.....
Majors.....	4	29	4	118	.....
Staff majors.....	3	29	4	88	.....
Staff captains.....	3	24	6	49	4
Captains.....	12	24	6	297	.....
First and second lieutenants.....	30	16	4	495	.....
Non-commissioned officers, musicians, privates, washerwomen, and servants.....	1,540	1	4	2,310	.....
Hospital headquarters.....	1	33	.....	33	.....
Hospitals at other posts.....	5	16	4	82	4
Armory.....	1	30	.....	30	.....
Mess rooms for officers.....	7	3	4	24	4
Offices commandant and staff, and commanding officers at posts.....	15	7	.....	105	.....
Officers-of-days rooms.....	7	3	4	24	4
Guard rooms at barracks and navy yards.....	9	21	.....	189	.....
Stores for clothing and other supplies.....	3	5	.....	15	.....
One-fourth additional on 1,540 cords, quantity supposed to be required in latitude north 36°.....				375	.....
Amounting to.....				4,361	4

Which, at \$6 per cord, is \$26,169.

ESTIMATES, 1870-'71.

Estimates of appropriations which will be required for the service of the Secretary's office and the southwest executive building of the Navy Department for the fiscal year ending June 30, 1871.

Object of expenditures.	Estimated am't which will be required for each detailed object of expenditure.	Total amount to be appropriated under each head of appropriation, in addition to the estimated amount which will be on hand at the beginning of the fiscal year.	Amount of last appropriation.
OFFICE OF SECRETARY.			
Salary of Secretary, act March 3, 1853, vol. 10, page 212, sec. 4, Stat. at Large	\$8,000		
Salary of chief clerk, act July 5, 1862, vol. 12, page 510, sec. 3, Stat. at Large	2,200		
Salary of solicitor and naval judge advocate general	3,500		
Submitted as increase to chief clerk	800		
Salary of disbursing clerk, act July 5, 1862, vol. 12, page 510, sec. 3, Stat. at Large	2,000		
Salaries of 4 clerks of class four, act March 2, 1865, vol. 13, page 454, sec. 1, Stat. at Large	7,200		
Salaries of 5 clerks of class three, act July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	8,000		
Salaries of 3 clerks of class two, act July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	4,200		
Salaries of 2 clerks of class one, act July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	2,400		
Salary of one messenger, act March 3, 1869, vol. 15, page 287, sec. 1, Stat. at Large	840		
Salary of one assistant messenger, act March 3, 1869, vol. 15, page 287, sec. 1, Stat. at Large	700		
Salaries of three laborers, acts of July 5, 1862, vol. 12, page 511, sec. 3; March 2, 1865, vol. 13, page 454, sec. 1; July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	2,160		
Contingencies. — Stationery, furniture, newspapers, and miscellaneous items		\$42,000	\$34,880
		5,000	2,240
SOUTHWEST EXECUTIVE BUILDING.			
Salary of one day watchman, act July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	720		
Salaries of two night watchmen, act July 5, 1862, vol. 12, page 511, sec. 3, Stat. at Large	1,440		
Salaries of two night watchmen, submitted	1,440		
Salaries of two laborers, act March 2, 1865, vol. 13, page 454, sec. 1, Stat. at Large	1,440		
		5,040	2,760
Contingencies.—Labor, fuel, lights, and miscellaneous items		7,500	6,000

Summary estimates for salaries and contingent for the office of the Secretary of the Navy, bureaus of the Navy Department, and the southwest executive building, for the fiscal year ending June 30, 1871.

Office or bureau, and object.	Estimate, 1870-'71.	Appropriation, 1869-'70.
Secretary's Office—		
Salaries.....	\$42,000	\$34,880
Contingent.....	5,000	2,840
Bureau of Yards and Docks—		
Salaries.....	90,380	14,640
Contingent.....	1,800	800
Bureau of Equipment and Recruiting—		
Salaries.....	18,660	8,440
Contingent.....	1,200	750
Bureau of Navigation—		
Salaries.....	10,460	5,240
Contingent.....	800	800
Bureau of Ordnance—		
Salaries.....	15,836	6,640
Contingent.....	800	800
Bureau of Construction and Repair—		
Salaries.....	16,860	12,840
Contingent.....	1,000	800
Bureau of Steam Engineering—		
Salaries.....	9,920	7,240
Contingent.....	800	800
Bureau of Provisions and Clothing—		
Salaries.....	18,660	14,640
Contingent.....	1,200	800
Bureau of Medicine and Surgery—		
Salaries.....	8,460	8,340
Contingent.....	600	400
Southwest executive building—		
Salaries.....	5,040	2,760
Contingent.....	7,500	6,000
Total.....	186,976	130,450

Summary statement of appropriations required for the fiscal year ending June 30, 1871.

Objects.	Secretary's office.	Bureau of Yards and Docks.	Bureau of Ordnance.	Bureau of Equipment and Recruiting.	Bureau of Navigation.	Bureau of Construction and Repair.	Bureau of Steam Engineering.	Bureau of Provisions and Clothing.	Bureau of Medicine and Surgery.	Aggregate.
Pay of navy.				\$3,600,000	\$4,000,000					\$7,600,000 00
Repairs of buildings and incidental expenses in navy yards.		\$3,672,494 00								3,672,494 00
Pay of civil establishments in navy yards.		145,998 75		39,760				\$41,838 75	\$71,952	434,647 50
Ordnance.			\$15,000			\$75,300	\$44,800			1,119,062 00
Equipment.			1,119,062							9,000,000 00
Navigation and navigation supplies.				9,000,000	202,500					202,500 00
Naval Academy.	\$224,540									224,540 00
Naval Observatory.					19,800					19,800 00
Nautical Almanac.					20,000					20,000 00
Repair and preservation of vessels.						6,975,000	1,750,000			6,975,000 00
Steam machinery, tools, &c.								1,405,900 00		1,750,000 00
Provisions.									57,800	1,405,900 00
Repairs of hospitals and laboratory.		50,000 00							72,000	57,800 00
Surgeon's necessities, &c.		1,091,000 00								72,000 00
Pay of ordinary.	150,000		1,000	150,000						50,000 00
Contingent.								100,000 00	40,000	50,000 00
Total.	384,540	4,959,492 75	1,135,062	5,798,760	4,242,300	7,050,300	1,794,800	1,547,038 75	241,752	27,145,643 50

Object.	Pay.	Provisions.	Clothing.	Fuel.	Military stores.	Transportation.	Repair of barracks.	Contingent.	Aggregate.
Marine corps.	\$731,467 17	\$135,991 70	\$50,000	\$28,169	\$10,000	\$20,000	\$12,000	\$75,000	\$1,000,697 87

NAVAL ACADEMY.

REPORT OF THE SUPERINTENDENT OF THE NAVAL ACADEMY.

SIR: I have the honor to submit herewith my annual report as Superintendent of the United States Naval Academy.

The Naval Academy has been in existence upwards of twenty-three years, and may now be considered one of the permanent institutions of the country, and it seems to be yearly gaining ground in the affections of the people.

Although it has undergone several revolutions, quite enough to disorganize any institution, yet I am happy to say it has recovered all its lost ground, and is now capable of a favorable comparison with any institution of the kind in the world.

Having been at the head of the academy for the last three years, and engaged in its reorganization upon a somewhat improved plan, I should be able to speak understandingly of its merits and defects.

Since its re-establishment at Annapolis, at the close of the war, four different boards have attended to witness the annual examinations, and have thoroughly investigated the system of instruction. Many of the gentlemen composing these boards were highly educated and scientific men, and most of them were persons of enlarged views and general information.

Every opportunity was given them to examine into the affairs of the academy, for the officers were always anxious to have defects pointed out that they might be corrected.

All these boards made favorable reports, the result, it is believed, of their honest conviction.

When it is considered that the annual expense of keeping up the Naval Academy is not more than the cost of maintaining a small gun-boat, it is to be hoped that the institution will continue to receive from Congress the same consideration that has heretofore been bestowed upon it.

It has always been my aim to make the Naval Academy a first-class institution, one the country could be proud of, and from which young men should go forth with an education that would fit them for all the duties of life.

It has been with feelings of great pride that I have heard foreign officers, who have visited our country, remark that there is no naval educational establishment in Europe that can compare with the Naval Academy.

Nothing goes so far to impress foreigners with our power as to witness the manner in which West Point and the Naval Academy are conducted, and the system of education adopted in these institutions. It was owing to the practical teachings of the Naval Academy that we were able during the late war to rapidly build up so large a navy, and in a short time drill the hardy officers of the mercantile marine into good practical naval officers.

In case of a foreign war the same good results would take place; for the officers of the navy are in fact a large corps of instructors in professional knowledge, which they have a happy faculty of imparting to others.

A large majority of the instructors at the academy are naval officers, and during the last three years drawing, French, and Spanish have been taught by line officers, one of whom has been at the head of the department of drawing.

It is not, however, practicable wholly to dispense with the aid of civilian instructors. There must be a certain number of persons permanently attached to the Naval Academy, for officers of the navy are changed every three years. Were this system of change applied to all teachers, in a few years the routine, records, and various other matters of importance would be lost sight of in the different changes made at the academy.

It would be difficult to carry on the same system from year to year.

It is considered that the present status of professors and assistant professors at the Naval Academy is about what it should be. There is now a majority of naval officers, but there are a certain number of civilian assistant professors in the different departments that cannot be dispensed with.

This matter has been examined into by the several boards of visitors at the academy, and they have invariably expressed the above opinion.

Boards of examiners have made reports from time to time that better hospital accommodations should be furnished. At present the hospital is only prepared to accommodate eight patients, and that with two in a room. This is not a desirable arrangement, especially if one of the two should be delirious.

There are no hospital accommodations whatever for sailors or other employes of the academy. In case of sickness, these persons have to sling in hammocks on board ship, amid all the noise incident to Naval Academy life. In this respect the commonest institution in the country is on a better footing than the Naval Academy.

A properly arranged hospital has, however, been commenced in the grounds belonging to the academy, and this great want will in about one year more be provided for.

The attention of the Navy Department has frequently been called to the fact that the grounds lying contiguous to those of the academy should be purchased. There is a space next to the academy now actually inclosed by the government grounds.

The assemblage of houses in this space is thus prevented from expanding; but the government can make no improvements on their lands until the above-mentioned property is purchased. This can be done for a sum that I do not deem unreasonable, considering the wants of the academy and its value to the country.

This land once purchased, the academy will have all the domain that it is desirable it should possess.

It is to be hoped that the institution will continue to recommend itself to the good will of Congress.

The system now in force I am satisfied is about the right one, although changes may be made from time to time to insure greater efficiency.

It should be remembered that the officers educated here go forth to represent the United States in all parts of the world, and whenever they are met with abroad they are taken as the exponents of the character of American citizens.

It is desirable, then, that the Naval Academy should receive the fostering care of Congress, and officers who graduate here should leave with the best education the government can give them.

It is also desirable that all the officers of the academy should reside within its walls, not only for their own comfort and convenience, but also for the promotion of discipline.

I recommend, therefore, an appropriation to increase the officers' quarters from year to year.

I would further recommend that professors and assistant professors should receive a small addition to their pay for every five years of service. It is not to be supposed that competent persons will remain in these subordinate positions all their lives, without some increase of compensation for length of service.

The annual examination commenced on the 20th of May last, and was concluded on the 4th of June.

The several classes of midshipmen numbered two hundred and fifty-three members, as follows: First class, seventy-eight members; second class, seventy members; third class, fifty-five members; fourth class, fifty members.

Of this number seventy-five members of the first class graduated and were detached from the academy for duty in active service.

The remainder who passed successful examinations were ordered to duty in the practice ships *Savannah*, *Macedonian*, and *Dale*.

The midshipmen of the several classes being embarked for the summer cruise, the practice ships, under command of Captain N. B. Harrison, commandant of midshipmen, sailed from the Naval Academy on the 12th of June last, with one hundred and fifty-five midshipmen on board, and after visiting the ports of Cherbourg and Brest in France, Portsmouth, England, and Funchal in Madeira, both vessels being in company during the entire cruise, and at all times within signal distance, arrived in Chesapeake Bay on the 18th of September, and in Annapolis Roads on the 25th of the same month. The cruise was pleasant and instructive both to the officers and midshipmen, and the conduct of the latter, with a few exceptions, was excellent.

The *Dale*, under the command of Lieutenant Commander Edward Terry, having eight members of the present first class attached to her, remained at the academy until the midshipmen admitted in June, forty-four in number, were embarked, and sailed on the 10th of July; cruised on our coast, and arrived in Annapolis Roads on the 23d of September last.

The number of candidates for admission to the academy, who reported in June, was sixty-one; number rejected by medical board, three; number rejected by academic board, twelve; number who left pending examination, two; found qualified for admission, forty-four.

The number who reported in September for examination was sixty-two; number rejected by medical board, seven; number rejected by academic board, twelve; found qualified for admission, forty-three. Total number qualified in June and September, eighty-seven. * * *

The United States ship *Sabine* sailed from Boston, July, 1869, with the graduating class of midshipmen on board, on a cruise of instruction.

The ship was directed to spend six months in the Mediterranean, visiting all the principal naval depots, thence to proceed to Rio de Janeiro and the Cape of Good Hope, returning home in time for the graduating class to pass their final examination in 1870.

The reports from the commanding officer of the *Sabine* of the progress of the midshipmen are highly flattering.

The new midshipmen's quarters, which were appropriated for by Congress in 1867, are now occupied by the midshipmen.

I have the honor to be, very respectfully, your obedient servant,

DAVID D. PORTER,
Superintendent.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

Estimate of the amount required for the pay of professors, assistant professors, and others on duty at the United States Naval Academy, for the fiscal year ending June 30, 1871, chargeable to the appropriation for the support of the Naval Academy.

1 professor of the French language.....	\$1,800 00
5 assistant professors of the French language.....	7,000 00
1 professor of the Spanish language.....	1,800 00
2 assistant professors of the Spanish language.....	2,800 00
1 professor of ethics and English studies.....	1,800 00
4 assistant professors of ethics and English studies.....	5,600 00
3 assistant professors of mathematics.....	4,200 00
1 assistant professor of astronomy, navigation, &c.....	1,400 00
1 assistant professor of natural and experimental philosophy.....	1,400 00
3 assistant professors of drawing and draughting.....	4,200 00
1 sword master.....	1,200 00
2 assistant sword masters, (\$1,000 each).....	2,000 00
1 boxing master and gymnast.....	1,200 00
1 assistant librarian.....	1,400 00
1 secretary.....	1,400 00
3 clerks to the Superintendent, (\$1,200, \$1,000, \$800).....	3,000 00
1 clerk to the commandant of midshipmen.....	1,000 00
2 clerks to the paymaster, (\$1,000 and \$600).....	1,600 00
1 commissary to subaist midshipmen.....	288 00
1 messenger to the Superintendent.....	580 00
1 armorer.....	529 50
1 gunner's mate.....	469 50
1 quarter gunner.....	409 50
1 coxswain.....	469 50
1 cook for midshipmen's mess.....	325 50
1 seaman, to attend in department of seamanship, &c.....	349 50
2 seamen, to attend in department of gunnery, &c.....	699 00
1 band master.....	528 00
18 musicians of the first class.....	6,264 00
7 musicians of the second class.....	2,100 00
2 drummers } musicians of the first class.....	1,044 00
1 fifer }	
Total.....	58,856 00
Pay of professors and others.....	\$58,856 00
Amount appropriated for the year ending June 30, 1870.....	60,000 00
Decrease.....	1,144 00

By a reduction of the academic staff, &c., this estimate is decreased below the amount appropriated for the year ending June 30, 1870, by \$1,144, and below the estimate submitted for the same year by \$23,545.

Estimate for the wages of watchmen, attendants at the gas and steam-heating works, and others on duty at the Naval Academy for the fiscal year ending June 30, 1871.

1 captain of the watch, at \$2 50 per diem.....	\$912 50
4 watchmen, at \$2 25 per diem.....	3,285 00
1 foreman at the gas and steam-heating works, at \$4 per diem.....	1,460 00
10 attendants at the gas and steam-heating works at academy and school-ships, one at \$3 25, three at \$3, and six at \$2 50 per diem.....	9,946 25
3 joiners, at \$3 50 per diem.....	3,832 50
2 masons, at \$3 50 per diem.....	2,555 00
1 tinner, at \$3 per diem.....	1,095 00
1 gas fitter, at \$3 per diem.....	1,095 00
1 blacksmith, at \$3 per diem.....	1,095 00
1 mechanic at workshop, at \$2 25 per diem.....	821 25
1 master laborer, to keep public grounds in order, at \$2 28 per diem.....	832 50
14 laborers to assist in same, three at \$2 and eleven at \$1 75 per diem.....	9,216 50
1 laborer to superintend midshipmen's quarters, public grounds, &c., at \$2 28 per diem.....	832 50

4 attendants at recitation rooms, library, chapel, and offices, at \$20 per month	\$960 00
2 painters, at \$3 50 per diem	2,555 00
20 servants to keep in order and attend to midshipmen's quarters, public buildings, &c., at \$20 per month	4,800 00
Total	45,294 00
Amount appropriated for the fiscal year ending June 30, 1870	\$45,294 00

This estimate remains the same as that submitted last year.

Estimate for contingent expenses of the Naval Academy for the fiscal year ending June 30, 1871.

For material for heating and lighting the academy, and school-ships, bandsmen's quarters, &c.	\$20,000 00
For the purchase of books for the library	2,000 00
For stationery, blank-books, maps, and models	3,500 00
For expenses of the board of visitors	2,000 00
For postage on public service	750 00
For furniture and fixtures for public buildings, &c.	2,000 00
For expenses with the astronomical and philosophical departments, &c.	500 00
For the purchase of steam machinery, steam pipe and fixtures, for rent of buildings, for use of the academy, for freight, cartage, water, musical instruments, uniforms for bandmen, telegraphing, and for the current expenses and repairs of all kinds, and for incidental labor not applicable to any other appropriation	35,200 00
Amount contingent expenses	65,950 00
Amount appropriated for the fiscal year ending June 30, 1870	61,450 00
Excess	4,500 00

The increase under this head is occasioned by the addition of four thousand five hundred (\$4,500) dollars—two thousand to the estimate for heating and lighting the academy, new quarters for midshipmen, &c., two thousand dollars for the expenses of the board of visitors, and five hundred dollars for expenses for the astronomical and philosophical departments, &c.

Estimate of the amount required for various purposes at the Naval Academy for the fiscal year ending June 30, 1871.

For finishing additional quarters for midshipmen, now in course of construction, as per contract entered into July 13, 1867	\$30,000 00
For necessary repairs of public buildings, &c.	8,000 00
For extending and repairing the wall inclosing the grounds of the Naval Academy	6,000 00
For repairs of wharves	4,500 00
For repairs of pavements, &c., and for laying brick pavement around new quarters for midshipmen	4,000 00
For repairs of sea-wall along water-front of the academy	1,500 00
For rent of quarters for the foreman of the gas and steam-heating works, at \$15 per month	180 00
	54,180 00
Amount appropriated for the year ending June 30, 1870	8,680 00
Excess	45,500 00

The increase under this head is considered indispensable, to finish the additional quarters for midshipmen, now in course of construction, for necessary repairs of buildings, &c., wall around the academy, wharves, pavements, sea-wall, &c.

Estimate of the amount required for the support, &c., of the department of steam enginery in the United States Naval Academy for the fiscal year ending June 30, 1871.

For engineer's stores	\$500 00
For material for repair of steam machinery	1,000 00
	<hr/>
	1,500 00
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Estimate for the wages of the following persons on duty in the machine shop of the department of steam enginery in the United States Naval Academy for the fiscal year ending June 30, 1871.

1 machinist, at \$3 50 per diem	\$1,277 50
1 machinist, at \$3 per diem	1,095 00
1 blacksmith, at \$3 50 per diem	1,277 50
1 boiler maker, at \$3 50 per diem	1,277 50
1 pattern maker, at \$3 50 per diem	1,277 50
1 moulder, at \$3 50 per diem	1,277 50
2 laborers, at \$1 75 per diem	1,277 50
	<hr/>
	8,760 00
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Amount estimated for support, &c., of department of steam enginery for the fiscal year ending June 30, 1871	10,260 00
Amount appropriated for the fiscal year ending June 30, 1870	5,000 00
	<hr/>
Excess	5,260 00
	<hr/>

This estimate is the same as that submitted last year, and is considered sufficient only to meet the wants of the department.

Recapitulation of estimates for Naval Academy.

Pay of professors and others	\$58,856 00
Wages of watchmen and others	45,294 00
Contingent expenses	65,960 00
Various purposes	54,180 00
Support, &c., of the department of steam enginery	10,260 00
	<hr/>
	234,540 00
	<hr/>
Total appropriated for the year ending June 30, 1870	180,424 00
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NAVAL ACADEMY, Annapolis, Md., September 10, 1869.

REPORT OF THE BOARD OF VISITORS, 1869.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., June 4, 1869.

SIR: The undersigned, appointed to attend at the Naval Academy during the May examination, as a Board of Visitors, for the purpose of witnessing the examinations of the graduating and other classes, and of examining into the state of the police, discipline, and general management of the institution, have the honor to report as follows:

The board assembled May 20th, the day designated, held a session on each secular day up to this, the day of graduation, attended all public exercises of the midshipmen, and, either as a board or by committees, witnessed a portion of nearly every examination of all the classes. We have not failed to observe carefully the general tone, bearing, and air of all connected with the institution, in all exercises and at all hours, whether

on or off duty, nor to look into the condition of the grounds, buildings, apparatus, and appurtenances of all kinds, for evidence as to the thoroughness and vigor of the government. Since the late war the grounds have been enlarged, both by purchase and by filling upon the water front. The chapel, new quarters, and several other buildings have been erected. The former residence of the governors of Maryland has been purchased and converted into a commodious library and superintendent's offices, and the grounds have been greatly improved.

In whatever aspect it is viewed, the institution exhibits clearly the effects of the profound interest Vice-Admiral Porter has felt in it, and of his very vigorous and able administration of its affairs. The officers and midshipmen manifest a justifiable pride in the prosperity of the academy, are jealous of its honor, and sincerely desire its continued advancement. The general impression we have received is exceedingly favorable. The academy appears to be answering well the purposes of its foundation. We learn from the records that during the superintendency of Vice-Admiral Porter the purchases of land, including the old governor's residence, the St. John's College lot, and the Strawberry Hill farm, have amounted to about one hundred and thirty acres, costing about sixty-five thousand dollars. Under special appropriations there have been erected the steam building, the chapel, and the new quarters; and we learn that, by savings from the annual appropriations for the academy, (under the heads of "for various purposes,") there have been built a block of two tenements for officers' quarters, the laboratory building, and a small edifice used as a photographic gallery. Other buildings are in progress. The amount of money expended since the war, upon all buildings, including the wholly new, and the alterations, is about two hundred and twenty-five thousand dollars. Between the new and old lands of the academy lies a section of the town containing perhaps twelve acres, covered by a cheap and not very desirable class of tenements. Looking to the future of the institution, the board, without hesitation, recommends that this tract of land be purchased. The possessions of the academy will then be in one body, with a sufficient area for all time for labor and recreation.

The classes in practical seamanship naturally attracted our early attention. The oral and written examinations were satisfactory, and not less so were the practical exercises in all that pertains to handling sails and spars. The introduction of steam has only added to the requisites of a good officer. It has not dispensed with the necessity for any of the skill in handling sailing vessels, that brought so much glory to the American navy in earlier days. This is obvious to the midshipmen themselves, as their zeal in this branch shows. It is also clear that the academy can only give a theoretical basis, with a limited amount of practical training.

The regulations of the academy already provide that no midshipman shall be entitled to his final examination for promotion to the grade of ensign until he shall have served at sea one year as a midshipman and engineer, after passing his graduating examination. Inasmuch as sending them on a year's cruise in one vessel continues the style of instruction they received in practice ships as under graduates, and inasmuch as many of our vessels in active service have no midshipmen, the board suggests that the graduating class be distributed among those vessels, there to perform the actual and necessary duties of midshipmen for at least a year, or until they are required in a higher grade, to which they should attain only after a rigid examination. With not more than from six to twelve on a vessel in active service, it is thought that they would supply a want that is felt, be more useful to the government,

and at the same time be acquiring more practical experience than by the other method. The theory and practice of gunnery must be attractive to the youth who desires to be worthy of his profession, and the board was gratified, but not surprised, by the successful examinations in the recitation room, and the admirable target-firing with the heavy guns of the "Santee." The mortar practice was also good. The drill on shore with sixteen boat howitzers showed perfect familiarity with the work, and was a brilliant exhibition in maneuvering and firing. The board also witnessed a satisfactory exhibition of naval tactics, representing in small boats the different orders of steaming and sailing fleets, divisions, and squadrons, to be observed for battle and other purposes, and of changes from one order to another. The midshipmen appeared before us as a battalion of infantry, on dress-parade and in battalion exercises, performing all the ordinary changes of front and formation, marching and charging in column and line, and winning from us and all spectators the most enthusiastic praise.

Beyond expressing its approval of the course of instruction, and its satisfaction with the results, the board has nothing special to remark concerning the examinations in mathematics, astronomy, navigation, surveying, and natural and experimental philosophy.

The department of steam-engineering presents more of novelty. Vice-Admiral Porter constructed the edifice known as the "steam-building," in which a marine engine, complete in all its parts, even to the screw-propeller, kept ready for use, and freely open to the midshipmen, under competent supervision, affords them every facility for practical study. The department is well supplied with models and drawings, and contains boilers in several stages of construction. The graduates were very thoroughly examined, orally and in writing, upon all the ordinary problems of steam, and were required to show that they could personally run and govern the engine. The text-book in use, "Main and Brown upon the Steam Engine," an English work, is manifestly unfit, being deficient in some respects and erroneous in others; and we are informed that much time is consumed in correcting its errors and lecturing upon important topics which it does not touch. Many parts of the engine are designated by names not in use in this country. The subject of heat is very briefly treated, and the theory advanced is not accepted at the present day. It contains no analysis of American coals, nor any table showing their relative efficiency. The dozen lines devoted to anthracite coal contain several inaccuracies. It confesses that its rules for finding the efficiency of engines are of little use. It has no lists of our ships, and its long list of British ships contains the names of many that are not in the service; and its tables of engines in ships make no mention of the boilers attached, which are the real exponents of the power of the machine. We do not doubt that some capable officer could be selected to prepare a text-book on the subject, which would be very valuable not only to the academy but to many other American schools.

We doubt if any institution in the world affords equal facilities for the theoretical and practical study of steam and the steam-engine; and it has occurred to us that they might be made of much more advantage to the navy and the country. We think that further efforts should be made to carry into effect the spirit of the act of Congress, "providing for the education of naval constructors and engineers." The navy will annually require additions to the engineer corps, and the officers of that corps could not be better trained elsewhere. If the regulations for admission of cadet engineers are such as to defeat their object entirely, they can easily be modified.

In the department of ethics and English studies we see nothing calling for special remark, in addition to general commendation. The board was very much pleased with the oral and written examinations upon the Constitution of the United States, the law of nations generally, and the relative rights and duties of belligerents and neutrals in time of war. It frequently happens that our naval officers appear as the sole representatives of the government in circumstances requiring the most prompt and energetic action as well as careful and accurate judgment; and it is important that all who hope to deserve the command of ships should be well grounded in the general principles of the laws likely to come in question in such emergencies. In connection therewith, the board freely praised the progress of the graduates in the French and Spanish languages. Of course, in these as in many other branches, it can only be expected that the academy will start the scholar upon his course, but, so far as the work is attempted, it is certainly very well done. All the drawings of the midshipmen—right line, sketching, perspective, topographical, chart, and mechanical—were exhibited to the board. The general average is exceedingly good, and there are many examples of marked excellence. In committing to the government the absolute control of several hundred youth, the country has a right to expect a careful regard to their moral and religious culture. The obvious difficulties of the case in a state without a church are met as well as they can be. In the regular course, provision is made for familiar lectures by the chaplain upon "the ground of moral obligation; our relations to God, and consequent duties; personal duties; the chief relations of men to each other in society, and the duties thence arising." Divine service is performed on Sunday, in the tasteful and commodious chapel on the grounds, at which "it is desired that all shall attend." The students are excused, upon a written request from their parents or guardians, based upon reasons of conscience, but they are required to attend other services, if such are held in the town, in accordance with their views. Daily prayers in the chapel, fifteen minutes before breakfast, are ordered by the Regulations; but for various reasons, which we are informed are temporary, this has given place to a brief invocation at the table. We think it preferable that, in a place where the honor of obedience and a faithful discharge of duty are so well taught in other respects, this daily act of worship should not be overlooked; and we are convinced that it is not well to prescribe, as we find it is done, that at all other hours on Sunday save those occupied at the chapel, students "shall conform to the prescribed hours of study." The judgment of the wisest physiologists, as well as the moral and religious sense of the country, requires that Sunday shall be a day of rest from all unnecessary labor. We do not believe that this infringement of the rule finds due compensation in the additional progress made in study. The Monday morning recitations do not commence until eight o'clock, and they can easily be so arranged that sufficient preparation can be made on that morning. Conscientious scruples are carefully regarded in other respects, and they should be in this, in accordance with the customs of colleges generally.

Very praiseworthy attention is paid to physical health and training. Hours of study and exercise are rigidly prescribed. The rooms are plainly furnished. Subsistence is determined upon by a board of three officers selected by the superintendent, and is furnished by a commissary of long experience. An officer presides at the mess table as inspector and "officer in charge." Bathing at regular intervals is required, and the best facilities are furnished at other times, at a trifling charge. The police of the ground and building is admirable. Tobacco

in every form, and intoxicating liquors of every description, are positively forbidden.

Regular instruction is given in dancing, boxing, and small and broad sword exercise, and all are required to submit to gymnastic training. Ball-playing and rowing are encouraged, as the board had excellent evidence. The result of all this care is a remarkably fine physical development, with instances of superior gymnastic skill and strength, and a very satisfactory general condition of health. During the year, out of nearly four hundred students and officers there has been an average of only about two per cent. excused from duty by reason of ill health, which has usually been of a slight and temporary character. The Regulations speak of the importance of the art of swimming, to which all would yield a ready assent; but we find that, owing to the multiplicity of other duties, and the occurrence of the annual cruise, from June to October, no instruction and no opportunities are afforded. This seems to the board a defect in the system of physical culture otherwise almost without fault, and the board invites attention to the matter. The hospital is unexceptionable so far as it goes; but the board is decidedly of the opinion that it is greatly insufficient. It can properly accommodate only twelve patients, and, including the detachment of marines, the various crews of vessels generally at this station, and the employés of all descriptions, there are many hundreds of persons who can claim attention from the medical department. It is proposed to remedy this, as the Boards of Visitors have repeatedly recommended, by the erection of a new hospital upon the grounds lately purchased.

We renew the recommendation of previous boards, that the principal naval officers of the academic staff be kept on their duty here for four years instead of three, with a change of one-fourth of the detail annually, in order that there may be with a class, up to its graduation, a portion, at least, of the instructors with whom it commenced its course.

It is possible that the academy may soon furnish annually more officers than the diminished navy requires in time of peace. The board would, nevertheless, maintain at least the present number of students. Probabilities favor the supposition that if this nation should soon again be involved in war, the chief contest would be upon the sea. In case of a surplus above the immediate necessities of the service, the rules restraining resignation might be relaxed, and some plan might be devised of giving an indefinite leave of absence without pay, subject to a call to duty in an emergency.

Speaking in the interest of the academy, the board hear with great regret a rumor that Vice-Admiral Porter may leave the superintendency at the close of this academic year. His services here have been of inestimable value, and cannot be forgotten. He has infused into every department vivacity, energy, a just pride, and a determined spirit of progress, and deserves the cordial thanks of every friend of the institution. The commandant of midshipmen, Captain N. B. Harrison, deserves an acknowledgment of the industry, sagacity, and sound judgment with which he has performed his laborious duties. His supervision is unceasing, and he enforces the rigid discipline of the institution with a tact, without sacrificing fidelity, which excludes all appearance of harshness. It has appeared to the board, from the observations of its comparatively short stay, that he is assisted by a body of gentlemen exceedingly well qualified for instruction and government. All the officers have been very active and courteous in exhibiting and explaining all things that come within our duties. We have endeavored to overlook nothing, and have stood ready to frankly criticise and recommend

changes if occasion should offer. We close by saying, in all heartiness and sincerity, that your department and the country have just reason to be proud of the Naval Academy.

H. PAULDING, *Rear-Admiral,
and President of the Board.*

J. R. GOLDSBOROUGH,
Commodore United States Navy.

JOSEPH R. HAWLEY, *Connecticut.*

E. G. PARROTT,
Captain United States Navy.

W. J. ALBERT, *Maryland.*

WM. MAXWELL WOOD,
Surgeon United States Navy.

D. C. HUMPHREYS, *Alabama.*

CHAS. H. LORING,
Chief Engineer United States Navy.

SIMEON B. CHITTENDEN, *New York.*

WM. H. WARDSWORTH, *Kentucky.*

Hon. A. E. BORIE,
Secretary of the Navy.

REPORTS OF BOARDS AND OFFICERS.

REPORT OF BOARD ON STEAM MACHINERY AFLOAT.

WASHINGTON, D. C., *September 29, 1869.*

SIR: The board appointed by the department to—

First. Examine the steam engines afloat in our national vessels, and make itself acquainted with the exact condition of their boilers and machinery, so as to state which are, and which are not, fit for service;

Second. Examine particularly into those of the new vessels, of the Wampanoag and smaller class, in order to ascertain whether some of their boilers and smoke-stacks, and also other parts, such as superheaters, &c., cannot be dispensed with, and yet reserve to those vessels a fair speed under steam, on their being provided with full sail-power, and arranged to accommodate a sufficiency of coal and provisions; and whether there be any means of making these engines more direct-acting than some of them now are; and to make recommendations in regard to the proper disposition of the coal bunkers on board of the vessels in view, as the department believes that they have been very improperly placed, and so as to interfere with the comfort of their crews;

Third. Ascertain if all our steam vessels can be fitted with but one smoke-stack, and that telescopic; or, where this is impracticable, if all the flues cannot be turned into one standing smoke-pipe, which will be clear of the main-sail when the ship is under sail, and to make recommendations on the subject;

Fourth. Keep in view, in suggesting alterations, that it is very desirable to improve the quarters of officers and men;

Fifth. Report to the department such vessels as may be found unfit for the naval service, and whether they should be sold;

And sixth. Report upon any matters omitted in the instructions to the board that may be deemed necessary—having visited the navy yards at New York, Norfolk, Philadelphia, League Island, Boston, Portsmouth, and Washington, and made at each the investigations enjoined upon it, has now the honor to submit its report.

NEW YORK.

At this navy yard, engines afloat were found on board of the Wampanoag, Madawaska, Neshaminy, Colorado, Minnesota, Roanoke, Susquehanna—classed as first-rates; Mosholu, Monongahela, Hartford, Canandaigua—classed as second-rates; Memphis, Algonquin, Wachusett, Frolic—classed as third-rates; Pequot, Huron, Shawmut, Clinton, Rocket, Maria, Catalpa—classed as fourth-rates; Bell, a picket boat, and the floating dry-dock.

WAMPANOAG, NOW FLORIDA.

This vessel is classed as a first-rate; was built at the New York navy yard in 1864, and cost, according to an official statement made by the Secretary of the Navy to the Speaker of the House of Representatives, \$1,575,643 84. Her steam machinery was furnished by the Novelty Works at New York.

She has a pair of horizontal geared engines, direct-acting on the crank-shaft, with a link motion, cutting off by lap on main valve, and with surface condensers. The gearing is in the proportion of 41 to 84.

The cylinders are 100 inches in diameter, and have a stroke of four feet. The distance between the centers of crank pins is 27 feet 10 inches; and the distance between the ends of crank-shaft bearings is 41 feet 3 inches.

The cubical space occupied by the engines alone, including the passageway on the starboard side of them, and measuring from their extreme points forward and aft, is 17,437 feet 6 inches. It is certainly inexpedient to render these engines more direct-acting than they now are. She has eight main boilers, all of the Martin type. Four of them are in the forward fire-room, and each of these has seven furnaces. The remaining four are in the after fire-room, two of which only have seven furnaces each, the other two having but six furnaces each. Besides these main boilers for generating steam, there are four small ones for superheating it, each having one furnace, and horizontal instead of vertical tubes. These are placed next to the engines.

The whole number of furnaces amounts to fifty-eight, and their grate surface amounts to 1,128 square feet.

There is one standing smoke-pipe to each pair of main boilers, and therefore four of them in all.

The weight of the eight main boilers is 733,629 pounds; the weight of the four superheating boilers is 79,842 pounds; and the weight of grate bars and bearers for all of the boilers is 72,500 pounds.

The weight of the two aftermost main boilers is 145,882 pounds, and the weight of the two forwardmost 168,030 pounds.

The total weight of engines, including all their appendants—boilers with water in them, smoke-pipes, shafting, screw, and all—is, as nearly as can be ascertained, 1,260 tons.

The screw has four blades, and it is arranged to uncouple. Its diameter is 19 feet, and it has an expanding pitch, the mean of which being 25 feet.

Four of the coal bunkers are on the berth deck, two on each side, and they together occupy a space of 8,400 cubic feet, and can accommodate 200 tons of coal. The bunkers in the hold are calculated to accommodate 550 tons.

The engines, boilers, and everything connected with them, are comparatively new; and, as they have been but little used, and have been kept well preserved, they are as fit now as they ever were for service.

As to the vessel herself, her frames are of live oak. All the materials used in her construction are of superior quality, and the workmanship bestowed on them speaks for itself. Better than either perhaps cannot be seen anywhere.

She has a length on her load-line of 335 feet; an extreme breadth of 45 feet 2 inches; and a depth of hold, measuring from the under side of lower-deck planking, of 16 feet. Her proportion of breadth to length, therefore, is as 1 to 7.417; and of depth to breadth, as 1 to 2.823.

Her draught of water to the load-line is 18 feet 6 inches forward; 19 feet 10 inches aft, and 19 feet 2 inches amidships; or her proportion of mean draught to breadth is as 1 to 2.356.

When she was launched her displacement, or weight of hull, after deducting 37 tons for the extra weights on board, was found to be 1,975 tons; and her displacement to the load draught, or that to which she was brought when fitted out, is 4,370 tons; the difference between the two being 2,395 tons; and this expresses the weight that the hull did then accommodate, and all that it can accommodate to the load draught.

The area of immersed midship section, in square feet, is 735; and by comparing this with the area of grate surface given above, it will be seen that she has 1.53 of grate surface to 1 of immersed midship section, which, for a vessel of war to answer the ends of a sea-cruiser, is very remarkable. In cases of this sort the rule has been, and still is, to fix the proportion the other way, or to make the area of the immersed section exceed that of the grate surface, and this considerably. It may be well to cite a few instances from a number the board has consulted:

	Square foot of immersed section.	Square foot of grate surface.
Iroquois, United States navy.....	1	0.710
Wyoming, United States navy.....	1	0.633
Franklin, United States navy.....	1	0.583
Niagara, United States navy.....	1	0.531
Ariadne, Her Britannic Majesty's navy.....	1	0.705
Galatea, Her Britannic Majesty's navy.....	1	0.727
Marlborough, Her Britannic Majesty's navy.....	1	0.462
Mersey, Her Britannic Majesty's navy.....	1	0.832
Hercules, Her Britannic Majesty's navy.....	1	0.698
King William, Prussian navy.....	1	0.677

And besides these instances of vessels of war, it may not be uninteresting to quote also the following steam packets, plying between New York and Europe, and of note for the good time they make in performing their trips:

	Square foot of immersed section.	Square foot of grate surface.
City of Boston.....	1	0.457
Ville de Paris.....	1	0.705
Russia.....	1	0.682

The Wampanoag has her bodies carried out so as to be extremely sharp forward, and correspondingly fine aft. Her rig is that of a bark, but her spars are so proportioned and distributed that her sails cannot be otherwise than of small general account.

She is arranged to stow in her hold 4,000 gallons of water; three chain cables each 120 fathoms long; and, according to an official statement made by her late commanding officer, bread for sixty-five days, and provisions of all other kinds for forty-five days, for a crew of 375 all told. Besides these articles, she can receive in her hold, as it is partitioned, a supply of the various others which belong there.

Comparatively her keel is of little depth.

The battery of this vessel consists of ten 9-inch smooth-bores, three 60-pounders, rifled, two 24-pounder howitzers, and two 12-pounder howitzers; and the aggregate weight of all the ordnance on board of her, including equipments and stores, amounts to 111.044 tons.

The weight of her masts and spars, sails, including spare ones, and rigging of all kinds—standing, running, yard gear, and miscellaneous—amounts to 101.75 tons.

The weight of her ground tackling of every kind, including kedges, boat anchors, grappels, buoys, chain cables and their tools, boat chains, bending shackle, and also manilla stream, and hawsers and towlines, amounts to 60.38 tons.

The weight of her boats, including steam launch, oars and spars, and also of her water tanks, casks, and water, and of her furniture, including ladders, gratings, mess chests, &c., amounts to 29 tons.

The weight of stores delivered by constructors' department, and miscellaneous stores, and of a crew of 375, with their effects, amounts to 53.5 tons.

Summing up these weights, and increasing the aggregate by 2,010 tons—that is, 1,260 for the weight of engines and appendants, and 750 for that of coal—the total amount will be 2,365.67, or less by 29.33 tons than the hull is calculated to accommodate.

But this balance should be increased by the difference between the weight of the screw in air and water, including its outer bearing and the projection of the shaft, or by about $1\frac{1}{4}$ ton, and should therefore stand, at most, at 31 tons. This result, however, does not include provisions, but it does show the margin of weight left for them.

The weight of one month's rations for one man is 71.8725 pounds, and, consequently, 31 tons, or 69,440 pounds of rations, will feed a crew of 375 men 2.6 months. Even this limited supply of provisions is only reached by applying the weight of enough of them alone to correspond with the balance in view, whereas, in fact, clothing, small stores, and candles should enter into the account. In regard to the weights of these the board is not informed; but it knows, however, that a supply of them for 375 men, for six months, requires a space of 405.5 cubic feet, supposing their stowage to be as close as possible, which, it may be observed, is a very bad expedient in the event of a variety of articles being placed in the same compartment; but this becomes a necessity in cases of cramped room. The Wampanoag has to stow 200 tons of coal on the berth deck, and this to the serious discomfiture of her crew.

It may be remarked here that a vessel of war with us should be designed to accommodate properly a very large, instead of a very small, supply of provisions and stores, for the simple reason that we, unlike Great Britain, for instance, have no colonies scattered over the track of our commerce whereat to recruit them; and hence, in a time of war, our cruisers must rely largely on their own resources; and, indeed, this reason, independently of other prominent considerations, applies to the necessity of rendering our vessels generally both fast and manageable under canvas, as well as under steam.

To our cruisers, at least, it is obvious that neither canvas nor steam should be applied as a mere auxiliary; but, on the contrary, that both should be so applied that either will afford the best possible results that the circumstances attending their combined use will permit. This cardinal consideration, it would seem, cannot be too strongly impressed upon our designers.

Owing to the acute shape of the Wampanoag forward, not a single gun can be used on her gun deck in giving chase to an enemy ahead; and even the use of stern guns on board of her is essentially hampered owing to the want of proper room.

In this age of ordnance, when a single shot may prove sufficient to send an enemy's ship to the bottom, as was the case with the Alabama in her contest with the Kearsarge, bow and stern guns are of much more importance than ever, and therefore for no purpose whatever should their use be embarrassed, much less relinquished. On the contrary, it

should be amplified to the uttermost that things will allow, and so, if possible, that the lines of fire of two of either may, when wanted, cross each other at comparatively a short distance from the vessel, and the shorter the better. No naval mind can assent for a moment to any shape or arrangement of model which involves doing away with, or lessening the use of, either in our cruising vessels.

There are other considerations concerning the shape of the Wampanoag to which the board begs leave to allude :

No wooden vessel of war, of her great length and small proportionate depth, however well put together, can probably endure rough seas without evincing sooner than common—and perhaps much sooner—a palpable want of longitudinal rigidity, and the effect of this upon long shafts and their bearings would at least prove a source of perplexity, and a detriment to steaming, to say nothing of other ill consequences.

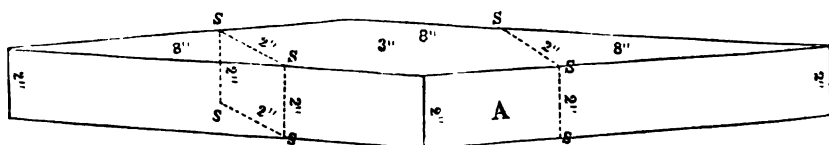
Moreover, a vessel of large displacement in amount, made up, too, to an exorbitant degree in the way of length, as is the case with her, requires much time, comparatively, in turning; and hence arises a corresponding difficulty in manœuvring either to gain or maintain a given position, or to bring the battery as a whole promptly in bearing on an object.

The whole essence of naval tactics is to bring as much of our own power of battery to bear against as little possessed by an antagonist as possible, and to keep this advantage to the uttermost; but a vessel slow in turning is not the one to accomplish this end, unless, indeed, her antagonist be equally tardy.

In a contest between two vessels of war, both having the same power of battery and the same properties of endurance, but differing only in the quality of turning, the advantage lies with the one that can bring her guns, in general, soonest into play; and if the difference in point be great, the latter, although she may be inferior in battery, may still have the advantage on her side.

The disadvantages arising from slowness in turning may be diminished somewhat by using pivot guns, but of these the Wampanoag has but one, a 60-pounder rifle, and it is mounted on her topgallant forecastle; nor, as things are, can she mount another anywhere on her gun deck.

Again, a simple experiment may serve to show at once several other objections to this vessel's form :



Let Figure A represent a vessel made of tin, having the form of two wedges, each equal to the other in every particular, united base-wise: and the dimensions of twenty-four inches long, three inches broad in the middle, and two inches deep ;

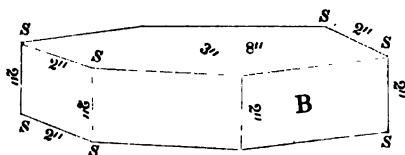
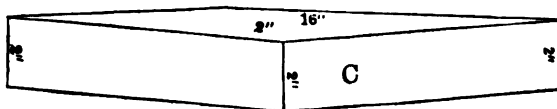


Figure B, the section of A plainly indicated, which is the middle

third of the length, and which, therefore, is eight inches long, three inches broad in the middle, two inches deep, and two inches square at each end;



And Figure C, the two ends of A united together, supposing B to be removed.

It will be found, upon trial, that A, intact or as a whole, and B, but a section of A, have essentially the same inherent stability, the difference between them being scarcely perceptible. But the broadside surface of A is three times that of B, one being 48.372, and the other 16.124 square inches; and therefore the force of the wind and seas acting upon the broadsides of both will be in the same proportion, or as 3:1; and yet the stability or force to resist the capsizing tendency is the same in either case. It may be remarked that the combined effect of wind and seas upon a vessel's broadside, in times of tempest, is not to be disregarded, for it has doubtless proved disastrous in the extreme in an untold number of instances.

And it will also be found, upon trial, that C has no inherent stability, or, at least, none at all appreciable. The extremities of any ordinary sea-going vessel, united in the same way, might, and doubtless would, exhibit a similar absence of inherent stability, but not, however, if they together embraced a considerable proportion of the vessel's length, much less two-thirds of it.

This remarkable feature is evidently confined to vessels of great proportionate length, or, which is the same thing, of little proportionate beam, and having their forward and after bodies carried out to an extreme of sharpness.

It is quite true that the form of Figure A—selected because of its convenience and sufficiency in making the experiment in view—does not represent that of the Wampanoag, nor indeed that of any other sea-going vessel; but it nevertheless serves, as well as though it did, to establish conclusively that a vessel of great proportionate length, narrowing her breadth of beam inordinately toward both ends, has but very little inherent stability in proportion to her broadside surface; and that quite early, comparatively, in this process of narrowing, points are reached, forward and aft, beyond which there is no accession of that stability furnished by the remaining long ends.

It is fair to infer, from these premises, that a vessel of the sort is innately liable to much rolling motion; that about the parts forward and aft, where an accession of inherent stability ceases to take place, and owing to the remaining length of ends beyond those parts, she is innately subject to be greatly strained in a sea-way; that an irregular or surging motion, in a heavy sea-way, must necessarily ensue; and that her proportions throughout are far from being those most conducive to safety under trying circumstances.

The weight the vessel is to carry will, of course, confer an artificial stability, and this to a large amount; and it is possible that it may be distributed, in part, so as to obviate materially the excess of motion incident to form; but, after all, there is no great room for the exercise of discretion in its distribution on board a vessel of war, more particularly if she be a steamer.

And, again, a vessel like the *Wampanoag*, on presenting her broad-side, offers an immense target to an antagonist, particularly in a lateral sense; and it is highly probable, from what has been shown, that her properties of motion will prove much less favorable to the use of guns than if, without any disturbance of displacement as to quantity, she were fashioned more in accordance with general usage, as applied to vessels intended for general war purposes.

It will be perceived, from the data already given, that the engines and appendants, together with the coal necessary to steaming, or to last only between five and six days at maximum work, which is all she stows, take up eighty-four per cent. of all the weight the hull can accommodate to the load-line, and thus that but sixteen per cent. of it is left as a margin for the weight of everything else to go on board—masts, rigging, sails, cables, anchors, ordnance, provisions, water, &c.

She undoubtedly proved, in the course of her trial trips, to be very fast under her full steam power, for she, as her log shows, did go, on an average for twenty-four consecutive hours, 16.95 knots, her maximum speed during the period being $17\frac{1}{2}$ knots, and her consumption of coal 5.71 tons per hour.

This was on the 12th of February, 1868. The wind was fair throughout, with a force of from three to four. It could scarcely have been of any service on the occasion, and no canvas was used. All of her boilers—eight main and four superheating—were brought into play; and, judging from the total amount of coal burnt, which was one hundred and thirty-seven tons, they were all probably urged to the uttermost. But this quality of a very high velocity under steam alone is really about all that has been established as to her merits as an efficient vessel of war.

It is beyond question that, in effect, nothing has been spared to attain this single end; or rather, that every other substantive attribute of an efficient vessel of war for general sea purposes has been, to a greater or less degree, literally sacrificed to secure it.

Her four-bladed screw and small show of keel nullify the use of canvas independently to any advantage of moment; and the quantity with which she is provided is of small proportionate area, and improperly distributed. As a consequence, in the event of accident to her machinery or a giving out of coal, her condition would be next to helpless. Every cruiser of our navy to be efficient should be arranged so as to spread properly a due proportion of canvas, and to move and work well under it; but this is very far from being the case with the *Wampanoag*. In fact, the reverse is much nearer the mark. Had she been given ample spars her velocity under steam might have been somewhat reduced, and it is quite certain they could not have been properly placed unless the existing amount and consequent distribution of machinery had been made to yield to the purpose, which again might have led to another reduction of steam velocity, and therefore, it is supposable, was not to be admitted by the intentions of those who controlled exclusively the planning of matters. There is scarcely a point about which our naval architects should be more jealous than the placing of masts properly, and experience proves that there is no absolute necessity for them to give up the required positions to the arrangement of steam machinery. Suitable masts and suitable machinery can always be accommodated in a vessel suitable for a cruiser or general war purposes without interfering prejudicially with each other; and where this accommodation does not exist the plain inference is that an egregious

error has been committed in planning the vessel and machinery each to the other.

Her weight of battery, compared with her displacement, is insignificant, and, notwithstanding the few guns she is calculated to support, even their use, as a consequence resulting from her great length and extreme sharpness, as shown above, is materially restrained.

Her accommodations for provisions are very insufficient, and so too for water.

With tanks less than enough to hold thirty gallons for each person on board, a crew will frequently have to drink distilled water while yet insipid from its temperature and want of aëration. Instead, therefore, of only four thousand gallons for a crew of three hundred and seventy-five, about twelve thousand should be the quantity.

Her accommodations for chain cables are also insufficient, as those on board are entirely too short for a vessel of her length to be moored with convenience. Two of them at least should not be less in length than one hundred and sixty-five fathoms each, and even longer would be still better.

Her accommodations for a crew are strikingly confined, and in warm climates, with all steam up, would prove anything but comfortable, if not almost uninhabitable. In the event of an epidemic, or of having to receive a number of prisoners, it is difficult to conceive any arrangement that could be made to reduce the risk of lives in the former case, or to avoid insupportable discomfiture in the latter.

In a word, cramped room for everything, except the steam machinery, is the rule throughout the vessel.

In this state of things, looking upon her as a whole, and especially in the light of a naval vessel for general naval purposes, it seems impossible to resist the conclusion that she is a sad and signal failure, and utterly unfit to be retained in the service; and that, therefore, she would prove a happy riddance upon any terms that would requite the value of her convertible materials.

Although her defects are fundamental, and cannot be eradicated essentially, still, if she must be retained and used as a vessel of war, she can be made somewhat better than she is for the purpose; but, really, she is too much of an abortion to be worthy of the large expense that would have to be incurred.

Four of her eight main boilers—the two forwardmost and the two aftermost—and, consequently, their appendants of two standing smoke-pipes, &c.—can be removed, and then the vessel can be given a fair speed under steam; for on the 8th and 9th of February, 1868, as her log attests, under only four main and two superheating boilers, and no canvas whatever, she did go twelve and a half knots, and did average eleven and a half knots for twenty-five consecutive hours. Her consumption of coal then, per hour, was 1,805 ton. The wind, at first, was nearly ahead, and had a force of from two to three; but subsequently it became fair, with a force which increased from four to seven, and caused the ship to roll heavily.

By comparing the average velocity attained on this occasion with that attained on the occasion given above, (when she was under all of her boilers,) it will be found to be almost seventy per cent.; and by comparing the coal consumed per hour on this occasion, with what was consumed per hour on that, it will be found to be short of thirty-two per cent.; or, to express these results more concisely, and in round terms, under four boilers, and with one-third the coal, she went two-thirds as fast as she did under eight.

By removing the four boilers in view, an increased space in the holds for stowage, of sixteen thousand five hundred and twenty-two cubic feet exclusive of alley-way, will be obtained, and also an increased space for the accommodation of officers and crew, equivalent to what is now occupied by the hatchways over these boilers.

All of the bunkers on the berth-deck may also be removed and put below, and thus this deck may be rendered infinitely more comfortable for the accommodation of officers and crew than it now is; and as they occupy a space of eight thousand four hundred cubic feet, by deducting this from the room afforded by the removal of the boilers, it will be seen that a clear space of upwards of eight thousand cubic feet will still remain for the stowage of an additional supply of provisions, water, &c., and for enlarging the chain lockers.

The arrangements existing on board this vessel for superheating steam amount to nothing less than an expensive failure. They involve much weight and space, and afford no benefit comparable to the much cheaper and simpler system of resorting to the uptakes, if, indeed, they do afford any benefit whatever. These also may be removed; but as the boilers answer remarkably well as auxiliaries, or donkeys, fixed as they are—which is about all they are good for—it would be well, perhaps, to let two of them remain.

The room in the holds to be gained by these changes will increase the present available space for stowage, so as to admit the carrying of quite six months' provisions and stores for four hundred men, and this after taking from it what is necessary to accommodate a proper quantity of water, and a proper length of chain cables.

On removing the boilers mentioned, she may then be given full sail-power; that is, about thirty-five square feet of canvas to one of the immersed section, with the masts placed so as to bring the center of effort about to its due position; but it would be an idle expedient to do this, unless the present propeller were changed to one of only two blades, or to what is understood as such, and the keel were made much deeper than it is.

To have her masts placed aright, supposing her present rig to be altered to that of a ship, all three will have to be shifted materially further forward than they now are; the foremast 9' 3"; the mainmast 19'; and the mizzen-mast 13'.

The shifting of the mainmast to the required position will perhaps involve the removal of one of the nine sections of gearing, or one of the gang of drivers and pinions, in order to get room to place two stout iron stanchions to support the step; but, with the boilers reduced in number one-half, it is not apprehended that any difficulty will arise by resorting to this measure.

The step may be supported, however, in another way, and perhaps as well, and that is by a system of wrought-iron beams supported by vertical iron stanchions placed both abaft and forward of the gearing.

The two remaining smoke-pipes may be rendered telescopic.

The present poop deck and top-gallant fore-castle may be brought together so as to form a complete light spar deck, and this will probably strengthen the ship in the sense of her length, and ease her rolling motion; and it certainly will afford better protection to her battery, and add much to the comfortable accommodation of officers and crew.

The weight of the things mentioned that may be removed, and supposing that a two-bladed screw will be lighter than the present one by some three tons, it would seem, will be perhaps not far from three hun-

dred tons; and if this is exceeded by the weight involved in bringing about a whole spar deck, increasing the keel, the spars and sails, the amount of provisions and water, the length of chains, and the rendering of smoke-pipes telescopic, the ship will then, of course, be brought down in the water lower than to her normal load draught, and this is a matter which, for various important considerations, demands careful attention.

Deep loading not only retards velocity, but it is a prolific source of disaster, and, unfortunately for property and lives, it is too often disregarded. No steamer, although she does relieve herself of weight by consuming coal, should be put to sea loaded so as to compromise proper buoyancy, for there is no telling how soon she may have to encounter a heavy gale of wind; and in the case of a vessel of war it may and probably will be, that the use of coal is not to take place at once, but to be the exception and not the rule.

Although the Wampanoag's arrangements may be modified as just stated, yet in truth but little, comparatively, will be gained by it, considering the expense that will have to be incurred, and, above all, the condition in which she will still be left. It is, in short, utterly impracticable to render her a vessel of war worthy of our navy. Her case is so bad as to be beyond cure, and to make palliatives appear as though they were labor lost.

It nevertheless may serve, like most others of the sort, as a source from which important lessons can be drawn, and among them it impresses the expediency of consulting, instead of ignoring, experienced and intelligent naval minds as to the properties to be secured in the construction and arrangements of a vessel of war. And it suggests too that a settled rule should exist as to what proportion of the whole weight a vessel's hull is to sustain may be taken up by steam machinery and coal; what by the other driving power of canvas; what by ordnance; what by provisions and stores; and so on to the end of everything to go on board. In this way of distribution, and in this way alone, may harmonious results be obtained; and it will effectually guard against excesses, and consequent exclusions, if properly fixed.

The same rule may not apply equally well to all vessels, but still it may be made to apply sufficiently well to all of the same rate or class; nor is there any insuperable difficulty in arranging as many rules as there are rates, each in general accord with the other.

To do this properly, however, *tonnage* should not be the criterion of rates. From the way it is deduced, it signifies nothing of the slightest consequence to naval ends, nor can it serve to compare accurately size or burden. The sooner, therefore, all reference to it is abolished, the better. *Available displacement* should be resorted to in its stead; that is to say, the weight to be admitted into the naked hull to bring it down to the established load line, which is to be got at by the simple process of taking the difference between the displacement on being launched and on being loaded. Ballast is purposely left out of view, because no naval vessel with steam—and none others need be thought of—should require any. If it must be used, however, in a certain case, either to confer artificial stability or otherwise, its weight should obviously be added to that of the hull in determining the amount of available displacement.

The rule in view should, of course, be held open to modification from time to time—to the progress of improvements in steam, ordnance, masting, &c.; but it should neither be established nor altered without the mature reflection of a board of competent officers.

It could scarcely fail to prove of great benefit in organizing the *material* of our navy, and it certainly would prove an effectual stopper against any more instances of giving up to wooden cruisers, classed as first rate, 84 per cent. of the available displacement to the ends of steam, or 52.61 per cent. of it to the machinery and boilers alone.

The main boilers of the Wampanoag, as stated heretofore, are all of the Martin type. This type of boiler, it would seem, has met with little or no favor outside of our navy; and, as compared with the ordinary boiler with horizontal tubes, it is objected to as being of no greater economy on the average, of much greater weight and cost, incapable of being forced to an equal extent, and, when forced, constantly liable to serious derangement.

The essential difference between the two as to construction is that one has vertical tubes, with the water passing through them, and the other horizontal tubes, with the fire passing through them. The former has the greatest proportionate amount of heating surface, and on this account economizes the use of coal to a moderate degree; but it involves more material and more labor than the latter; and if to this be added the charge for patent, it will be seen that it must both weigh and cost more. It has, however, one advantage of note over the latter; and that is, it can be cleaned easier and better. On the other hand, there is no plugging a defective tube with steam up, or without letting the water down; nor can it be forced to a desirable extent in a time of need without giving rise to insupportable difficulties.

In these particulars a decided advantage lies with the ordinary boiler having horizontal tubes, and this might well amount to the difference between overhauling, or escaping from, an antagonist, and not doing so; or between getting, and not getting, stranded on a lee shore. On the whole, it is to be hoped that the days of the Martin boiler are numbered as to its continuance in our navy.

But, in truth, neither of these boilers is what is wanted for naval purposes, for both, considering the existing state of ordnance, and without anticipating what it may yet become, have the top, or, in other words, the space for steam, entirely too high for safety in battle; and it is of vital importance that this signal objection should be remedied to the uttermost; and that it can be remedied, to a material degree, admits of no question. The tubes can be placed between the furnaces, instead of above them, with the lower ones brought down nearly as low as on a line with the bottom of the ash pits—and the lower the better—without giving rise to any substantive detriment whatever, for the experiment has been abundantly tried; and thus the top of the boiler, or space for steam, can be lowered accordingly. It is true that lowering the height involves the necessity of increasing the length, in order not to lessen cubical volume; but then again, and fortunately, bunkers can be placed on the top, as well as at the side, of boilers so arranged, and thus in the most convenient position possible for an access to coal, and at the same time in the very best, perhaps, for protecting the boilers against descending or plunging projectiles; and as to any absolute loss of cubical space in the hold, the probability is there will be a gain. Boilers and bunkers of sufficient power and size have to take up the same amount of cubical space, however they may be shaped or wherever they may be placed; and it is by stowage only that any gain of room is to be acquired.

A compact distribution is always of much consequence, but it requires discretion to bring about the best results as to space and convenience.

While alluding to this subject of boilers, the board begs to remark that, in the course of its examinations, it was struck, not unfrequently, with the bad order in which they were found, and this evidently owing to sheer neglect. In various instances, which will be mentioned hereafter, they were found covered with rust internally to a highly destructive extent, and as if little or no pains had been taken to guard against its accumulation and consuming effect. But a remarkable case of an opposite kind was presented by the appearance of the boilers of the Dictator, which, although the vessel had been laid up for some four years, and nothing had been done to them during the time, were found to be in excellent order as to an exemption from rust. On inquiry, it was ascertained that when she was laid up they were carefully cleaned, and then given internally as good a coat of common fish oil as could be accomplished by hand; but it is not to be supposed that every minute part, particularly those that were hidden, could have been reached by this mode of applying the oil, or that they can possibly be reached in this way. But the difficulty may be easily and thoroughly overcome by simply filling one boiler with as much oil as it can contain, and then pumping the same into another, and so on indefinitely, taking care, of course, in each application that the boiler be completely filled. The board, after what it has witnessed, strongly recommends this course to the consideration of the department, feeling well assured that it cannot fail to be productive of great economy in the preservation of boilers on board vessels in ordinary. Before applying the oil, care should be taken to render the boiler fit for a cruise by extending to it all needful repairs, and having these tested, as to proper execution, by subjecting them to an adequate amount of water pressure. After this, a thorough cleaning and drying should take place; and then, on using the oil, it would be well to give it a sufficient pressure to insure its reaching every spot of the interior surface.

It would not do, perhaps, to treat donkey boilers, intended to be used in distilling water, with fish oil, lest there might be too much difficulty in getting rid of its smell and taste.

The subject of the best material for spars, both masts and yards, as to steamers, or of that which unites pre-eminently strength, lightness, and durability, and which, when applied, can as well as any other endure wounds from shot, admit of prompt repair, and also of prompt extrication in the event of going by the board, is one of much interest to naval purposes. Untempered steel, it would seem, stands out in prominent relief in these particulars, and as though ere long, or as soon as it can be afforded among ourselves, excellent throughout in quality, and within bounds as to cost, it will be found advantageous to resort to it as a substitute for wood.

Its inherent strength will probably enable a mast of it to withstand wounds in general quite as well as though made of any other available material; and a shot, or a series of them, that would carry it away, would be pretty certain to prove equally disastrous to a mast of any other kind. There can scarcely be a doubt that it would admit of easier effectual repair than a mast of wood.

On being carried away, the quantity of water it would immediately receive would probably dispose it to sink at once, and thus to do what would be most desirable in a crisis of the sort, for a floating spar would be certainly very apt to be a much greater obstacle to resuming the use of the propeller, and, in a heavy sea-way, more injurious in every other respect.

Besides, with masts of steel, the upper ones may be rendered telescopic, and thus sent up and down with vastly greater expedition than any other arrangement will admit. In preparing for battle, more particularly on a sudden emergency, or in steaming against adverse winds and seas, this would prove highly advantageous.

Chief Engineer Dungan has already turned his attention to the matter in view, and he has succeeded in bringing about a mode which entitles him to much credit.

With a modification of some few minor details, there can hardly be a doubt that his arrangements will be found all-sufficient.

By them the topmasts and topgallant-masts may be sent up and down together, or the topgallant-masts may be housed separately, and so, too, fidded.

The simple machinery he proposes is to be worked either by steam or by hand, whichever may be preferred on an occasion or for a vessel.

As to propellers, the board urgently recommends that in every instance where one of three or more blades has been given to a vessel intended to use her canvas independently, it should be removed and replaced by another of two blades, either split or otherwise, as may be found most advantageous; and that in no instance should a propeller be made to trice up if the arrangement must lessen the efficient use of stern guns.

Furthermore, it recommends that in all instances where the spars have obviously been misproportioned and misplaced—and there are many of them—or where either has taken place, the error should be remedied, as far as it can now be, at the earliest moment.

It is of primary importance, as already mentioned, that all of our cruisers should, under canvas alone, both sail and work well; but this is simply impossible while using propellers with more than two blades, or spars of insufficient proportions, stuck, as it were, anywhere to suit the convenience of improperly arranged steam machinery. It is absurd to expect it. A propeller of any sort, and at best, is, unavoidably, a detriment to sailing properties; and therefore, on this account, in the case of a screw vessel intended to have full sail power, the least liberties are to be taken in proportioning and distributing spars; but with us it would seem the very reverse has been the rule. Witness the *Ticonderoga*, *Canandaigua*, *et sic de cæteris*.

Shallow draughts with shallow keels are utterly inconsistent with good sailing results.

Until our vessels are arranged properly for sailing it is unreasonable to exact or expect a maximum economy of coal.

It is not going too far to assert that already, owing to improper propellers and improper masting, a vast amount of money has been expended for coal, every dollar of which might have been saved under sensible arrangements in these particulars; and a very large proportion of the expenditure was necessarily made to procure coal produced abroad, or not by ourselves; and this is still the case.

MADAWASKA, NOW TENNESSEE.

She is classed as a first-rate, was built at the New York navy yard in 1865, and cost, according to an official statement of the Secretary of the Navy to the Speaker of the House of Representatives, \$1,673,080 52.

The case of this vessel is essentially that of the *Wampanoag*. They are twin ships—both the unfortunate offspring of an irretrievable blun-

der *ab initio*—or rather they are duplicates of each other, in every particular, as to hull.

Her engines, however, and also her screw, are of a different kind; nevertheless, on the whole, she is scarcely less worthless as a vessel of war. The former are not geared, and they are of the Ericsson vibrating lever type, with cylinders the same in diameter and stroke as those of the Wampanoag; and the latter has four blades, a diameter of nineteen feet, and a pitch, which is invariable, of thirty-five feet.

The boilers are the same in number, size, and type, as those on board the Wampanoag, and they are as bountifully provided with smoke-pipes of a standing order. The arrangements for superheating, too, are just the same in both instances.

The engines, together with all their appendants, are in good condition, and as fit now, probably, for service as they ever were.

All the modifications alluded to, in the case of the Wampanoag, can be carried out perhaps equally well on board this vessel, and with a prospect of about the same results, except that it is impracticable to step the mainmast any further forward, owing to the disposition of the steam machinery. But by giving her the rig of a ship, with spars proportioned to spread a due amount of canvas, and placing the fore and mizzen masts materially further forward than where they now are, the center of effort may be brought much nearer to a proper position than it is at present.

It seems from this vessel's log that, when she underwent trial, a number of the engine journals became heated; and it would be well, therefore, to bear this in mind, in the event of again putting her engines to work.

NESHAMINY, NOW NEVADA.

She is classed as a first-rate, and was built at the Philadelphia navy yard in 1865. She is still, however, in an uncompleted condition. The amount of money expended upon her, exclusive of what has been paid on the score of equipments, is \$1,266,874.

This vessel, although of the same length on the load line as the Wampanoag and Madawaska, has even less breadth and depth—counting the latter from the under side of lower deck planking—and her frames are of white oak. The difference in extreme breadth is eight inches, but on the forecastle, at thirty feet from the bow, it amounts to upwards of five feet. The difference in depth is eleven inches.

Already, although never employed for a moment at sea, she exhibits a marked twist, or cant, of hull, and her original lines have doubtless become altered. It is very evident that in building this vessel sufficient means were not taken to secure enough strength, or else that it was impossible to secure enough, either in consequence of the materials used or owing to her form.

She presents even a much worse case than either the Wampanoag or Madawaska, and it is the opinion of the board that she is utterly unworthy of repairs, and ought to be sold immediately.

Her engines and superheating arrangements are the same as those of the Wampanoag; but her boilers are not the same, as they have horizontal tubes. In number, however, they are alike, and in number of standing smoke-pipes there is no difference. All are in very good order, and as fit for service as at first. Her screw is the same as that of the Wampanoag.

Arrangements have been made to place bunkers on the berth-deck, but as yet they have not been carried out.

The modifications mentioned in regard to the Wampanoag are alike applicable to this vessel, provided she must be retained and repaired. Her repairs, though, even now, would involve a large expenditure of money; and it may be well doubted whether any white oak vessel, as a general rule, ought ever to be repaired at all extensively, with the view of her continuance in our navy.

It would not be hazarding much to predict that she is already decayed in many places, besides being sorely twisted as stated above.

This vessel, besides being built of white oak, is not even copper-fastened. She is fastened with treenails.

The predominant idea in getting her into existence seems to have been the production of a sort of overgrown Indian canoe in shape and lightness, and thus to obtain speed at all hazards, no matter what might become of other indispensable qualities; and the result has been, as it were, scarcely anything less in effect than—pardon the expression—a slunk foal.

Her designer, a man of marked ability as a naval architect, and, indeed—without meaning to be invidious—certainly at the very head of his profession in this country, was, no doubt, pressed to yield his own solid judgment, as to her model and construction, to the importunity of others, and in a way difficult, if not almost impossible, to resist. He is not, therefore, in common fairness, to be held to a strict accountability for her palpable, terrible failure in embryo.

The real source of the difficulty in her case, and in that of others of similar size and shape, is to be traced to the egregious error of assuming the want of vessels of their type, and the possibility of their production to answer the ends of efficient vessels of war, and this never proceeded from his clear and ample brain.

Without doubt he was, however, compelled, in a sense, to lend himself to it, although his known modesty and delicacy towards others may induce him not to admit the fact.

This vessel presents a lamentable and glaring instance of a waste of efforts, and a downright squandering of means; and the wrong of squandering property is equal to the folly.

COLORADO.

She is classed as a first-rate, and was built at Gosport in 1855.

The boilers placed on board this vessel are three in number, all entirely new, and of the Martin type. Two of them—the main boilers—have eight furnaces each; and the other—an auxiliary or donkey—has one furnace. In all, therefore, the number of furnaces amounts to seventeen. A superheater is provided, and it is conveniently placed in the uptake at the base of the smoke-pipe, and so as not to interfere with anything, or occupy space available for any other useful purpose. The original boilers now replaced by these new ones were also of the Martin type, and had sixteen furnaces, but they were constantly found not to afford steam enough to enable the engines to be used to the best advantage. The same deficiency of boiler-power was experienced on board the Minnesota, and also the Roanoke before her conversion, their boilers and engines being duplicates of those on board the Colorado.

Owing to the comparatively small amount of stowage now required for fresh water, space enough is left to increase the boiler-power of the Colorado conveniently, and without occupying room necessary to ac-

commodate a sufficiency of provisions, stores, and outfits in her holds. The board therefore suggests that three more boilers be added to those now on board, one of which to be another auxiliary like that already provided, and the other two to be of two furnaces each; the former to be placed opposite to the present auxiliary, and the latter opposite to each other at the forward ends of the main boilers. This will increase the number of furnaces from seventeen to twenty-two, and, probably, the velocity of the vessel under full steam about one knot per hour.

In order to accommodate the two boilers of two furnaces each, about eight feet of the after part of both the forward bunkers will have to be taken away, but the after bunkers can be extended aft considerably more than eight feet, and thus the amount of coal to be carried can be increased rather than diminished.

The ship, heretofore, when down to her load line, invariably trimmed by the head, and therefore it would not be expedient to extend the forward bunkers.

As to the machinery of the Colorado, a new crank-shaft is required. One of the main pistons requires truing up in a lathe, and its rings, follower, and follower bolts, require to be refitted. New brasses are necessary for all the bearings, also new heaters for the feed-water, and new pipes for the boilers and engines.

The smoke-pipe is intended to be telescopic.

The bulkheads and braces of the coal bunkers need repairs.

The screw itself, being shipped, is not visible, but there is no doubt, from inquiry, that it is in good order.

With the exception of the repairs indicated, the boilers and machinery are fit for service.

MINNESOTA.

She is classed as first-rate, and was built at Washington, D. C., in 1855.

Her original boilers still remain on board. They are four in number, of four furnaces each, and of the Martin type. They have undergone extensive repairs heretofore. Their water bottoms and tubes of composition are now good, but other parts are defective. The ash-pit doors are deficient in size, and the furnace doors are badly fitted. The seams of laps formed by the comparatively new water bottoms and the old parts of the boilers leak considerably, and in some places of the laps metal enough is not left for caulking. There are some leaks in the steam chimney, and a new upper course is required in the telescopic smoke-pipe. These boilers can be repaired so as to last, perhaps, eighteen months or so longer, but for a full cruise the board would recommend new ones; and whenever the latter be substituted, it would recommend that they be two of ten furnaces each, and two (auxiliary) each of one furnace.

It is proper to state that the boilers on board the Minnesota are in a bad condition as to cleanliness.

The engines are in good general condition, but require overhauling to prepare them for a cruise.

Many of the valves and cocks connected with the boilers require renewing, having been ground in so often that they have become very thin.

The bunkers require an overhauling of braces, but otherwise they are in good condition.

The screw itself requires that its driving faces in the tenon of the hub

should have new cheek pieces, and these should be fitted when the ship is again docked.

In other respects than those stated, the boilers and machinery are fit for service.

ROANOKE.

She is classed as a first-rate, and was built at Gosport in 1855.

The original boilers, four in number, each of four furnaces, and of the Martin type, still remain on board. In addition to these, she has an auxiliary boiler of two furnaces, also of the Martin type, which was placed on board mainly for turret purposes, when the vessel was converted to an iron-clad.

In regard to the main boilers, the tubes, which are of composition metal, are defective at their ends, and in many of the tube boxes they have been removed. Several of the bridge walls have been cut out. The water bottoms are much worn and corroded, and all the braces require a thorough overhauling. Considering the age and condition of these boilers, it is the opinion of the board that, if the vessel should be required for anything more than mere temporary service in harbor defense, new ones would be necessary. To repair them even for such temporary service will involve new tubes, water bottoms to be filled with cement, some new front sheets to the shells, some new braces, new steam and water pipes, and a general overhauling of appendants. The auxiliary boiler has iron tubes, and from long continued incessant use and corrosion, it is now essentially unfit for further service. It should be replaced by a new one.

The engines require a new main crank-shaft, valves, and cocks, an overhauling, and various minor repairs.

Both boilers and engines need immediate attention to preserve them from utter ruin by corrosion. In point of cleanliness they are in a very bad condition.

The turret machinery requires a complete overhauling and also immediate attention to guard against the effects of rust.

The screw is not visible, being fixed and under water, but inquiry leads to the belief that it is not in a bad condition, but, on the contrary, rather the reverse.

The bunkers require an overhauling of braces, but in other respects they are in good condition.

SUSQUEHANNA.

Classed as first-rate, and built at Philadelphia in 1850.

This vessel has two inclined engines, direct acting, and cylinders seventy inches in diameter, and stroke of pistons ten feet.

The two inboard main frames are defective in their upper parts.

There are several patches about the cylinders which require renewal: and the steam and exhaust valves require overhauling. The holding-down bolts are many of them loose, and the engine keelsons are decayed. The air and steam pumps require overhauling.

A new outboard delivery valve-chamber is required in place of the one now cracked and patched.

The main valves and valve gear require overhauling. Engines in present condition not fit for service.

There are at this time no boilers on board this vessel. The boiler keelsons are much decayed.

The coal bunkers on the berth deck require extensive repairs, and so, too, with those below the berth deck. In both cases the iron is corroded through in many places.

The water-wheel shafts, intermediate crank shaft, and the water-wheels themselves, require attention.

So far as cleanliness is concerned, the machinery and appendants of the *Susquehanna* are in a bad condition.

MOSHOLU, NOW SEVERN.

Classed as a second rate, and built at New York navy yard in 1865.

This vessel, in hull, may be regarded as having the *Wampanoag* or *Madawaska* as an archetype, except that she is rather better as to relative breadth, and rather worse as to relative depth, whether the latter be compared with her length or breadth; but she has about the same extravagant running off of ends. Essentially she is a diminished pattern of the same tribe, but yet not loaded perhaps with steam appliances to quite the same exorbitant degree.

Her length on the load line is 290 feet; her extreme breadth, 41 feet, and her depth of hold from the underside of lower deck planking, 13 feet 3 inches. Her proportion of breadth to length, therefore, :: 1 : 7.073; and of depth to breadth, :: 1 : 3.094. In absolute dimensions, as compared with the *Wampanoag* or *Madawaska*, she is 45 feet shorter, 4 feet 2 inches narrower, and 2 feet 9 inches shallower.

She is what is called a white oak vessel, although her cants, hawse pieces, apron and stemson, are of live oak.

Her engines are back-acting, with cylinders 60 inches in diameter, and 3 feet stroke. They are not geared, and they have a Sewell's surface condenser.

She has four main boilers, each of the Martin type, and each with seven furnaces; and besides these she has two others for super-heating, each with one furnace, and having horizontal tubes. In all, therefore, the number of furnaces amounts to thirty, and their grate surface amounts to 585 square feet, which exceeds the area of the vessel's immersed section, the proportion being :: 1.083 : 1; which, although in the same exceptionable way as in the case of the *Wampanoag* or *Madawaska*, is not carried to the same extravagant extent.

There are two standing smoke pipes, both forward of the main-mast. It is possible but not expedient to convert them into one, as to do this would involve the necessity of rebuilding the fronts of the boilers, elevating a considerable part of the steam room above the water-line, and diminishing materially the ventilation of the fire-rooms, not to say anything in regard to labor and expense.

The bunkers in the hold, as they are, can receive 310 tons of coal. Those intended to be placed on the berth deck have not yet been put up.

The screw is four-bladed.

The engines, and all their appendants, are in excellent order, and as fit for service as they ever were.

The vessel is of good workmanship and of good materials of their kind; and if it should be judged expedient to retain and use her in the navy until she runs down so as to require extensive repairs, although she never can be made much of an efficient vessel of war in proportion to her displacement, which, to the load line, is 2,920 tons, still she may be rendered materially more so than she now is, by—

1st. Removing entirely the two after boilers and their appendants of

one smoke-pipe, &c., and converting the space of hold they occupy into a coal bunker—leaving, however, a passage way on both sides 3 feet wide by $6\frac{1}{2}$ feet high—and to the accommodation of more provisions and stores, more water, and a greater length of two of the three cables.

2d. Transporting the two small boilers so as to place them conveniently at the after end of the remaining boilers, not however to be used as originally intended—for which they are really useless—but to subserve the purpose of warming the vessel throughout, when necessary, conveniently and economically, and also for distilling water in this way.

They are excellent auxiliaries to the main boilers for increasing the amount of unsuperheated steam when desirable, and can be used independently for any purpose to which it may be deemed expedient to apply them. They, together with the two remaining main boilers, will afford sixteen furnaces in all for generating steam for the engines; or still leave about 331 square feet of grate surface, or a proportion to each square foot of the immersed section of 0.613, which, by consulting the instances cited in the case of the Wampanoag, will be found to be at least a fair if not a high average quantity. Besides, by an official report, it appears that the Contoocook, now the Albany, an exact duplicate of this vessel in hull, machinery, and every other particular, on the 4th of October, 1868, in running from Hampton Roads to New York under only two main boilers, and against a strong head wind and sea, did steam ten knots; and this, be it observed, without bringing either of her auxiliaries into play.

3d. Changing the propeller to one of two blades.

4th. Adding materially to the depth of keel.

5th. Extending the poop and topgallant-forecastle so as to become a complete light spar deck, and having the hammocks, when stowed, to be about breast-high.

6th. Increasing the number of tanks so as to accommodate at least nine thousand gallons of water. The contents of those now on board are but 5,876 gallons, which is not enough.

7th. Enlarging the chain lockers so as to stow three chain cables, each $1\frac{1}{4}$ inches wire, and two of them 165 fathoms long, and the other 120 fathoms.

8th. Altering her rig to that of a ship, and distributing her spars so as to bring the center of effort where it belongs, taking care at the same time that the spread of canvas is enough to enable the vessel to sail and work well under it. The steps for the fore and mizzen masts can remain where they are, but that for the main mast will have to be shifted twenty and a half feet further forward, and this can be accomplished readily, and so as to step the mast on the keelson, if the two main boilers mentioned above be removed.

The removal of the boilers in view will not disturb the trim of the vessel to any extent of moment, as may be seen by consulting the plan exhibiting the present disposition of all the boilers. In putting up the additional bunker in the hold, or the one to take up, in part, the space which will be left by their removal, arrangements will be required to pass the steam pipe along through it, and also the main mast down through it to a step on the keelson, as this mast will have to be moved forward to about the place at present occupied by the smoke pipe to be taken away. These can be easily executed.

The smoke pipe just mentioned, and the main mast as it now stands, are but 14 feet apart, but with the former removed, and the latter stepped as stated, there will then be a distance between this mast and the one

smoke pipe to remain of some 22½ feet; and if this smoke pipe be rendered telescopic, as it should be, the mainsail can be used and worked without difficulty.

The modifications here suggested admit of the vessel's carrying in her hold 550 tons of coal, or 70 tons more than she is now expected to stow, taking into account the 170 tons intended originally to be stowed on the berth deck, and 550 tons to be consumed by the remaining furnaces, will probably be enough to last for 27 days, provided the steam is limited to a moderate pressure. They also admit, at the same time, of her stowing six months' provisions, and stores of all kinds, for a crew of 300 men, and of accommodating officers and men in a rationally comfortable manner. They discard entirely the hideous alternative of bunkers on the berth deck, and they insure, in general, the board believes, the best attainable results that the circumstances of the case will permit, paying a due regard to outlay.

The board would urge that the masts be given little or no rake.

An independent, adjustable cut-off, as an additional modification, would no doubt prove of much advantage in the economy of fuel, and also in other respects; and there will be space enough to admit it.

MONONGAHELA.

Classed as second rate, and was built at Philadelphia in 1862.

Hull has frames of live-oak. The engines are back-acting, with single piston rods, having cylinders nominally 42 inches in diameter, and a stroke of piston of 30 inches. The forward cylinder, however, has a diameter of 42½ inches, and has probably been re-bored. To put these cylinders in good order, it is necessary to re-bore them and to furnish them with new pistons complete. New brasses are required for the crankpin and crosstail journals of the forward engine; and the eccentric-rod pins, valve-slide rods, and sliding bar of this engine require to be trued up, and new brasses are necessary for them.

The after engine crankpin has a surface crack extending about half-way along the journal; but a probe could not be inserted deeper than one-eighth of an inch, and therefore it is not to be regarded as of serious consequence. The main slide valves require facing. The reversing cylinder and all the valve gear require overhauling. The collar thrust has three-sixteenths of an inch end play, and needs adjustment. The main crank-shaft journals are in good condition, but the shaft itself is out of line. The eccentric straps have fore and aft play—should be trued up and refitted.

In a word, the engines require a general overhauling, and are not fit for service in their present condition. It is probable that the engines and boilers will have to be removed when the hull is repaired.

The boilers are of the Martin type, and three in number: two main, with seven and six furnaces respectively, and one auxiliary, with one furnace. Some new tubes are required, and some of the braces require new rivets; also, the furnace and ashpit door frames, where broken, should be repaired.

All the cocks, valves, and pipes connected with the boilers want overhauling. The water bottoms of the main boilers are now covered with cement; new ones are recommended. The boilers are not fit for service in present condition.

She has a Sewell's surface condenser, but no superheating apparatus. The condenser and appendants need overhauling.

Her smoke-pipe is telescopic, but its hoisting gear does not work

well, and would answer much better if arranged like that of the Canandaigua.

The screw is in good order.

The bunkers require repairs, and they will probably have to be taken down when the hull is repaired.

HARTFORD.

Classed as a second rate, and built at Boston in 1858.

Two horizontal cylinder engines: after one $62\frac{3}{16}$ inches in diameter, and forward one but 62 inches in diameter; stroke of piston 34 inches, double piston rods, direct acting.

The main crank-shaft journals are in bad condition, and the shaft itself is worn down and requires lining up. New brasses are necessary.

The main cross-head journals are cut, and require truing up; and new brasses at both ends of the connecting rod are required.

The cut-off valves require to be faced, stems trued up, and new nuts fitted. New saddle plates on backs of main valves and new packing rings are necessary.

Eccentrics require truing up, and to have new straps fitted. The eccentric-rod pins in the links are loose, and the holes in the links and rods should be reamed out. New pins are needed.

The feed-pump plungers want truing up, and the stuffing boxes want bushing.

The main-valve rock shaft of the forward engine is badly cut in its forward journal, and requires truing up and new brasses.

The reversing cylinder needs to be re-bored, and its piston to be refaced, with the follower fitted to it and its rings.

The engines, therefore, are not fit for service in their present condition.

The boilers are three in number: two main, of six furnaces each, and one auxiliary, of one furnace. All are in such bad condition from long use that new ones should be substituted in their places. The board recommends an increase of boiler power, viz: two main boilers, of seven furnaces each, and two auxiliaries, each with one furnace, thus augmenting the whole number of furnaces from thirteen to sixteen.

This vessel has now two jet condensers, but the board recommends a surface condenser in lieu of them.

She has one telescopic smoke-pipe, and it is in fair order.

Her coal bunkers are in a bad condition, and need extensive repairs to fit them for service.

The hoisting apparatus of the screw requires repairs.

CANANDAIGUA.

Classed as second rate, and built at Boston, Massachusetts, in 1862.

Engines back-acting, not geared. Cylinders nominally 42 inches in diameter, with a stroke of pistons 30 inches; but the after cylinder is $42\frac{9}{16}$ inches vertical diameter, and $42\frac{5}{16}$ inches horizontal diameter; and the forward one is $42\frac{5}{8}$ inches vertical diameter, and $42\frac{1}{2}$ inches horizontal diameter. The after cylinder requires re-boring, and new piston follower and rings. The forward piston-rod follower is also in bad condition, and requires to be refaced and fitted to the piston; and the piston itself and rings need truing up. The follower is split, and does not fit the piston.

The main-valve packing rings of the forward engine require truing up, and the springs require cleaning, as they are now very rusty. The

nut on the valve end of main steam valve's stem needs a steady pin to secure the stem from working out.

The after engine crank-pin has two surface cracks, but they are not regarded as serious.

The bolts securing the guards of the air-pump valves need jam nuts to fix them properly.

The hand gear for working engines is connected with poppet valves. The cross-head pin of forward engine is badly cut, and must be trued up, and new brasses must be made.

There is no bearing on the collar thrust, as the ball thrust has been doing all the work. The two should be adjusted to divide the work.

The engines are not fit for service at present, but may be made so by repairs.

The boilers are three in number: two main, of seven and six furnaces, and one auxiliary, of one furnace, or fourteen furnaces in all. There is no superheating apparatus.

The boilers are no longer fit for service, and therefore new ones, or else extensive repairs on the old, are required. To replace them by new ones would be preferable.

The condenser is of the Sewell's surface kind, and it has several lower and main tube sheet bolts broken off.

The board recommends that this vessel should be provided with a new distilling apparatus, to be connected with a new steam pump; a friction brake on the screw shaft, to prevent its revolving when required to connect with the crank shaft; and that the two blower engines and fans be taken away.

The smoke-pipe, which is telescopic, is in good condition.

The coal bunkers require extensive repairs.

The screw is fixed or standing, and has four blades. With this, and masted as the ship is, it is simply impossible, in the judgment of the board, to realize even tolerable results from canvas alone; and the difficulty in her case is that, owing to the present disposition of steam machinery, no really proper cure of masting can be effected, and even if this did not exist, still the number of blades of the screw would remain as a serious obstacle in the way. And she is but one of a number of others in this category.

MEMPHIS.

Classed as a third rate, and built at New York in 1862.

This captured blockade runner has an excellent iron hull, and she is provided with engines built in Dunbarton in 1862, having two inverted cylinders, each 46 inches diameter by 36 inches stroke of piston, and one surface condenser.

The engines are in good order and fit for service, but the condenser is not so, as it leaks about the packing of the tubes, and it has no followers to secure the packing. Many of the tubes, too, are unfit for further use.

She has two main boilers of three furnaces each, and one small auxiliary boiler, with a steam pump on the spar deck. All are in a fit condition for service.

The smoke-stack is a standing pipe with a damper, and it is in good condition.

As this vessel is not suitable to naval ends for any other purpose than that of a transport, it is the opinion of the board that she ought to be sold.

ALGONQUIN.

Classed as third rate, and built at New York in 1864.

This vessel has frames of white-oak. In the opinion of the board she is worthless as a vessel of war, and therefore should be sold without hesitation.

She is provided with Dickenson's engines and boilers, and they, fortunately, it is understood, do not belong to the government. The boilers, certainly, although comparatively new, are utterly unfit for service, and the engine is so likewise.

WACHUSETT.

Classed as third rate, and built at Boston, Massachusetts, in 1861.

Her engines have horizontal cylinders—back acting, with double piston rods. The cylinders are 50½ inches in diameter.

The saddle plates are grooved, and require truing up; and the main valves and seats need to be refaced. The stems and nuts of the cut-off valves are rusty.

There is a heavy strap on after crank of forward engine, and a crack in the crank pin extending through into the crank. A new crank shaft is required.

The eccentrics and straps, main-valve links, pins, and blocks are much worn. In short, all the valve gear requires overhauling, and new parts to be substituted in lieu of those which are defective.

The main-piston springs are very defective, and a new set is required in both pistons.

Some of the follower bolts are broken, and new ones are required in their places.

The cross-head journals require filing up; the forward one is round, but the after one is $\frac{1}{8}$ of an inch oval. The brasses are somewhat scored, and a new set of cross-head brasses are needed.

The bilge pumps are worked from an eccentric on the main-crank shaft, which needs refitting, and the pumps themselves need overhauling.

There is a shoulder at the ends of the cylinders which should be chipped off.

The condenser is of the Sewell's surface kind. The followers through which the tubes pass should be fitted anew, and these should be counter-bored so as to prevent the tubes from working through.

There is a double-acting circulating pump for the salt water, and also for the fresh, which has some of the foot and delivery valves worn out.

The board recommends a hand pump in the fire room for pumping water overboard from boilers, when not under steam; and that iron gratings should be placed over engine and fire room hatches. New fire-room plates are required in place of those broken.

The Wachusett has two main boilers and one auxiliary. Of the former, the starboard one has seven furnaces, and the port six. The auxiliary has one furnace. All the boilers are of the Martin type. In their present condition these boilers are not fit for service, and to repair them properly will require new water bottoms, many new braces and stay bolts, and that all leaky seams should be made tight, and a new crown sheet put in the uptake of the auxiliary boiler. The appendants of the boilers also require considerable repairs—the furnace, ash-pit, and uptake doors; the feed and blow valves, and cocks; the stop and safety valves, and many of the pipes and gauges—all need overhauling.

The coal bunkers, too, need repairs to fit them for service.

The smoke-pipe, which is telescopic, is in good condition.

The screw, being under water, was not visible, but there is no reason to doubt its being in good order.

FROLIC.

Classed as third rate, and was captured in 1864.

Her engines are two side levers, with short D slides, a variable grid-iron cut-off, jet condensers, and a vertical lifting air pump. Diameter of cylinders 64 inches; stroke of piston 6 feet.

The main steam pistons should be made tight; the main and cut-off steam valves refaced; the parallel motion adjusted; the pins and journals trued up; the cut-off gear overhauled, and the engines lined up.

The engines are fit for temporary service in their present condition, but would be materially improved by the above repairs.

The boilers about the uptakes and top of steam drums are thin, and need some new sheets of iron; also, hard patches should be substituted for the soft ones that have been used. The crown sheets require scaling, and the furnace doors new lining plates. A new set of grate bars is wanted. The boilers are fit for temporary service as they are, but should be repaired as indicated before being employed on a cruise of any extent.

The coal bunkers need some slight repairs, but they are still fit for service.

The smoke-pipes are in good condition.

The feathering wheels are also in good condition.

As this steamer is really not fit for a vessel of war, it occurs to the board that the best course to pursue in regard to her would be to sell her at once.

Her hull is of iron, and it is undoubtedly strong and substantial.

PEQUOT.

Classed as fourth rate, and was built at Boston, Massachusetts, in 1863.

This vessel has two segmental engines, provided with a surface condenser, and two boilers of the Martin type, with six furnaces each.

The smoke-pipe is standing.

The engines and boilers are in fair condition, and can be made fit for service by simply incurring a small expense in the way of cleaning, adjusting, and packing.

The vessel herself is unworthy of repairs, and ought to be sold as early as practicable.

HURON.

Classed as fourth rate, and was built at Boston, Massachusetts, in 1861.

Single piston rod, back-acting engines. Two horizontal cylinders, the forward one being $30\frac{3}{8}$ inches in diameter, and the after one $30\frac{3}{8}$ inches. Stroke of piston 18 inches. The out-board cylinder heads are both broken in the flanges, and new ones are required. The cylinders themselves are grooved, and need re-boring.

Owing to a want of attention when the vessel was laid up, the valve-faces and seats are rusty.

The main crank-shaft journals are in bad condition from rust, and are somewhat cut. They need polishing up in lathe, and new brasses.

The after slide of forward engine cross-head is strapped, but otherwise it appears in good order.

The valve sliding-bar guide rods are set fast with rust. The main stop-valve stem of the after engine is bent and requires to be straightened. The hot-well gauges are defective, and the independent steam pump and the bilge pumps need overhauling and repairs.

The distilling apparatus also needs overhauling.

The links and attachments are much worn, and the holes in them for eccentric-rod pins should be reamed out, and new pins should be fitted. Also, new link blocks, and new brasses for straps at stub end of eccentric rods, should be provided.

The forward link is sprung and should be repaired.

The cross-head journal of forward engine requires to be trued up.

The boilers are two in number, of the Martin type, and have two furnaces each.

The furnace-door frames are broken, and there are no frames for the ash-pit doors.

The uptake doors and frames are in fair condition. There are a number of patches, hard and soft, on the sides of the furnaces and on the water bottoms.

A large number of the tubes are leaky, and the tube spaces are nearly choked up with salt and ashes.

The boilers are not fit for service as they are, and to make them so new water bottoms, many new tubes, new bridge-wall plates, and a general overhauling of cocks, valves, pipes, and gauges will be necessary.

The smoke-pipe is standing, and has some defective sheets.

The board recommends that this vessel should be sold, as she is unfit for naval purposes.

SHAWMUT. •

Classed as fourth rate, and was built at Kittery, Maine, in 1863.

The engines have a single piston rod, and are back-acting. They have two horizontal cylinders, each 30 inches in diameter.

Stroke of piston 24 inches.

The cylinders are cut, and require re-boring. The main valves and seats need to be faced, and, in the judgment of the board, new valves with packing rings in steam chest cover are required, and they should be adjustable, and not, as at present, of Waddell plates. The crank shaft requires to be trued up in lathe, and the journals of it and crank pin, and also of main cross-head, require new brasses.

New gibs on crosshead and on crosstail are needed; and the main-valve links should be dressed out, and new blocks should be fitted. All the valve gear requires overhauling, and the main-stop valves should be made tight. The Sewell's surface condenser has leaks about the tubes which should be stopped.

The boilers are two in number, of the Martin type, and have six furnaces each.

No auxiliary boiler, and no superheating apparatus.

The boilers require several hard patches in place of the soft ones which have been put on, and many leaky socket bolts to be removed, and new ones to be substituted.

The tubes and seams should be made tight. The boilers require scaling.

These repairs are not extensive, but they should be done before the boilers can be regarded as fit for service. The valves, cocks, and all appendants of the boilers should be overhauled.

There is one standing smoke-pipe, with a damper, and it is in good condition.

The bunkers need some new braces, and the iron casing about the boilers some new plates.

The screw is fixed, and has four blades. It uncouples, and is, no doubt, fit for service as to condition.

CLINTON.

Classed as fourth-rate, and purchased in New York in 1864.

She has a vertical inverted cylinder engine, the diameter of cylinder being 16 inches, and the stroke of piston 17 inches. No condenser; screw, four bladed.

She has one cylindrical boiler, with a horizontal flue and return tubes, and two furnaces. Smoke-pipe standing.

Her bunkers contain ten tons of coal. They have bulkheads of wood, which ought to be replaced with iron.

Her small steam pump is in good order, and it has a fire hose attachment. There is no distiller.

Engines, boilers, and screw are in good condition, and fit for service.

ROCKET.

Classed as fourth-rate, and purchased at New York in 1863.

Has one inverted vertical cylinder engine, the diameter of cylinder being 25 inches and stroke of piston 24 inches. It is high pressure, or non-condensing, and is in good condition and fit for service.

The boiler has one flue with return tubes, and two furnaces. It is in good order, and ready for service. The standing smoke-pipe is also in good order.

She has one independent steam pump for use in case of fire, and another of smaller dimensions to feed the boiler. Both are in good order.

The screw has four blades, and is in good order.

MARIA.

Classed as fourth-rate, and built at Brooklyn, New York, in 1865.

Has one vertical, inverted cylinder placed over the crank, and one boiler with horizontal fire tubes, and three furnaces. The engine and boiler are in good condition, and fit for service.

The coal bunkers and standing smoke-pipe are also in good condition, and fit for service.

The screw, being submerged, was not examined; but the board, from what it could gather, has no reason to doubt that it is in good order.

CATALPA.

Classed as fourth-rate, and purchased at Philadelphia, in 1864.

Has a vertical direct-acting engine, diameter of cylinder 34 inches, stroke of piston 36 inches. She has a jet condenser, and a four-bladed screw.

The condition of the engine, condenser, and screw is good and efficient.

The boiler has one cylindrical horizontal flue with return tubes, and two furnaces. It is new and in good condition. The standing smoke-pipe is also in good condition.

There are two coal bunkers, one on each side of the boiler, and they each contain thirteen tons; but they have bulkheads of wood, which, in

the opinion of the board, ought to be replaced with iron, in order to guard more effectually against fire.

She is provided with two steam pumps and one distilling apparatus. The former are efficient as fire pumps. All are in good order.

BELL.

She is a picket-boat, purchased at Boston, Massachusetts, in 1864.

Has a horizontal tubular boiler, with a pair of vertical engines bolted to its frame—one on either side; all built in London in 1864.

The engines are in working condition, but now require a general overhauling—lost motion to be taken up on all the journals; new brasses to various bearings; new link blocks and pins; steam-pipe joints renewed; new glass water gauge, and an additional gauge cock, as there are but two at present.

The feed pipes, too, are leaking, and some new pipes are necessary.

The twin screws of the boat are in good order, but the screw shafts need lining up.

The boiler leaks in its water bottom, and a new standing smoke-pipe is required, as the present one is broken and worn very thin.

The steam pump needs overhauling, and the steam gauge testing. In other respects machinery and boiler are fit for service.

FLOATING DRY DOCK.

This was completed during the late rebellion, about 1865. It never has been used but to take up one comparatively small vessel—the Memphis, perhaps. There is not depth of water enough in the Wall about, or elsewhere about the New York navy yard, to admit of its being generally used. Indeed it is very doubtful if it ever will be used again during its lifetime. It exhibits now the aspect of a mass of materials subject to rapid deterioration. In the opinion of the board, it is an appendage to the yard really worthless, and therefore that it ought to be sold for what it will fetch.

The steam machinery and boilers are in good condition.

NORFOLK.

At this navy yard engines afloat were found on board of the Lancaster, classed as second-rate; Winnipic, Saugus, Seminole, Galena, classed as third-rates; Saco, Snowdrop, Periwinkle, Jean Sands, Mayflower, Standish, classed as fourth-rates; steam launch.

LANCASTER.

Classed as second-rate, and built at Philadelphia in 1858.

Has two horizontal cylinder, direct-acting engines, built by Reanie, Neafe & Levy, at Philadelphia, in 1858.

Two jet condensers, and a "percolator" for depriving the feed water of the boilers of its foreign matter.

Engines have an independent, adjustable cut-off; they are now under repair, fitting for sea.

Four boilers of the Martin type, with brass tubes, and horizontal superheating tubes at the base of the smoke-pipe. This superheating attachment should be made so as to permit its being shut off and the

steam taken direct from the boilers, in case of accident, to the super-heating tubes. There are heaters for the feed water.

One telescopic smoke-pipe, in good order.

Screw has two blades—hoisting.

Coal bunkers unfinished.

The boilers are new, and also many portions of the engines, which are still under repair, as the vessel is being fitted out for a cruise.

WINNIPEC—IRON DOUBLE-ENDER.

She is classed as a third-rate, and was built at Boston, Massachusetts, in 1865.

Has one inclined direct-acting engine, with Stevens's cut-off and Sewell's surface condenser; two independent Sewell steam pumps.

Two main boilers, containing seven furnaces each, and two super-heating boilers of one furnace each. All have horizontal fire tubes.

One standing smoke-pipe, in good order.

Two overhanging water wheels, in good condition.

Coal bunkers in complete repair.

The machinery and boilers are in good condition, and fit for service.

This vessel is not fit to be retained in the navy.

SAUGUS.

Monitor, classed as third-rate.

She has two vibrating-lever engines of the Ericsson patent, built by Harlan, Hollingsworth & Co., of Wilmington, Delaware, in 1864, with Stimers's patent surface condenser, and an independent duplex Worthington engine for air and circulating pump; also an additional Worthington pump for general purposes.

Two boilers of the horizontal, return tubular type, arranged with tubes with four sizes, as patented by Stimers, each with six furnaces and two auxiliary boilers, with one furnace each.

The vessel is in commission, and engines and boilers are under repairs.

One standing smoke-pipe, in good order.

SEMINOLE.

Classed as third-rate, and was built at Pensacola, Florida, in 1858.

Machinery built at Morgan Iron Works, New York, in 1860.

Two horizontal cylinders, double piston rods, back-acting engines, independent adjustable cut-off, Pierson's surface condenser.

Fixed screw with four blades, $12\frac{1}{2}$ feet diameter, 21 feet pitch. No proper uncoupling apparatus for screw.

Thrust-block holding-down bolts are not secure.

Three vertical tubular Martin boilers, containing twelve furnaces in all. One of the main boilers has six, the other five, while the donkey boiler has one furnace. The braces of the main boilers are much weakened by oxidation, and the steam pressure in them should not be allowed to exceed twenty pounds per square inch above the atmosphere.

One telescopic smoke-pipe, in good order.

Coal bunkers in good order.

We recommend a clutch coupling between the screw and crank shaft, and a friction brake on the screw shaft.

Machinery and boilers are performing service, with ship in commission.

GALENA.

Classed as third-rate, and was built at Mystic Bridge, Connecticut, in 1862.

Has two Ericsson vibrating lever engines, with horizontal cylinders 48 inches in diameter, and a stroke of piston of 3 feet.

Single piston rods; slide cut-off valves; independent steam-reversing cylinder; gridiron slide throttle valve; two Stimers's surface condensers. Circulating and air pumps, worked from rock shaft of each engine.

Screw has four blades, 12 feet diameter, 20 feet pitch. No uncoupling apparatus between screw and crank shaft.

Two horizontal tubular boilers, three furnaces in each. No auxiliary boiler. Fan blast; two blower engines.

One standing smoke-pipe, in good order.

Coal bunkers in good order.

Boilers are built without man-holes in spandrels between furnaces, making their interior surface difficult of access to clean or repair. An entire new set of tubes is now being put in the boilers.

We recommend a clutch coupling between screw and crank shaft, so arranged as to permit the screw to revolve when the ship is under sail; and a friction brake on the screw shaft.

This vessel is in commission, and engines and boilers are under repairs.

SACO.

Classed as fourth-rate.

Two single piston rods, back-acting Isherwood engines, Sewell's surface condenser.

Details of the engines which require repairs: Outboard delivery valve; link motion, steam pistons, indicator pipes and gear, new brasses to donkey pump and pump, counter, condenser, cocks in glass water gauges, and pipes, cocks, and valves connected with the boilers—all to be overhauled.

Air-pump rods to be cased and trued up.

Column on injection valve to be renewed.

Pieces put on side of eccentric straps.

New oil cups, new lignumvitæ rings in air pumps, and two new stems for blow valves of boilers are required.

Stop valves ground in.

Exhaust pipes and steam jets in smoke-pipe to be repaired.

Surface blowpipes to be overhauled and refastened to ship's side.

Ends of surface blowpipes lowered inside of boiler to prevent blowing out of steam instead of water.

One patch on No. 4 boiler.

Steam pipe in fire-room refelted and cased. Lower row of tubes in boilers to be cleaned and repaired.

Superheating tubes to be taken out and replaced by new ones.

She has four boilers, with tube boxes alongside the furnaces; horizontal fire tubes, with vertical superheating tubes of copper; two furnaces to each boiler. Many of the boiler tubes are leaking.

Two standing smoke-pipes, in good order.

Coal bunkers are in good order.

Fixed screw, four blades.

SNOWDROP.

Classed as fourth-rate, and purchased in Buffalo, New York, in 1863. She has one trip-hammer engine, 24 inches diameter, 30 inches stroke; cylinder valve, Buffalo cut-off, and jet condenser.

Carries ordinarily 25 pounds steam; 24 inches vacuum; makes from 80 to 90 revolutions, and about 9 knots.

Engines in good condition.

Two donkey pumps; one arranged for fire and pumping ship, the other for pumping boiler.

One boiler with two furnaces. Back flue and return-tube boiler in pretty good condition. Door linings require renewal, as do four or five leaky rivets in water legs. Tubes are in good condition.

One standing smoke-pipe, in good order.

Coal bunkers hold about eighteen tons of coal; they require iron bulkheads in fire-room.

A new cock is required on surface blowpipe, and a new plug from three-way cock from donkey.

Screw is fixed and has four blades.

Machinery and boiler are fit for service.

PERIWINKLE.

Classed as fourth-rate.

One inverted cylinder engine, 48 inches by 48 inches, built by Neafie & Levy, of Philadelphia, in 1864.

Has a slide valve and independent adjustable cut-off; a jet condenser, but can be worked high pressure; four-bladed screw, nine feet in diameter. The engine is easily worked, and under perfect control; is in complete order, and highly recommended by those in charge.

Has one horizontal return tubular boiler, with four furnaces. The water bottoms are getting thin and beginning to give some trouble. Five tubes have been found defective, and are plugged up; these should be replaced with new ones.

One standing smoke-pipe, in good order.

The coal bunkers should have iron bulkheads in fire-room.

About twenty pounds steam is usually carried in the boiler, and the boat is said to make twelve knots easily.

Machinery and boiler are performing service.

JEAN SANDS.

Classed as fourth-rate, and was purchased at Brooklyn, New York, in 1864.

This vessel is in use as a steam lighter and anchor hoy.

She has one inverted vertical cylinder engine, jet condenser; Sewell's steam pump, connected to pump water from bilge or into boiler, and for use as fire-pump, in good order.

Engine was built at Continental Works at Greenpoint, by I. Rowland, in 1865.

Boiler is cylindrical, with flues and return horizontal tubes, and vertical superheating tubes in steam drum at base of smoke-pipe. Boiler has two furnaces.

One standing smoke-pipe, in good order.

Coal bunkers of wood; but the board recommends iron in place of them, as a security against fire.

Machinery and boilers in good condition, and fit for service.

MAYFLOWER.

Iron tug, classed as fourth-rate, and built by James Tetlow, Chelsea, Massachusetts, in 1865.

One inverted vertical-cylinder engine, with an independent steam-reversing cylinder; no independent cut-off.

Two piston rods, two valve stems on main slide.

Engine is difficult to work by hand.

One jet condenser. One Sewell steam pump, connected to pump water into boilers, or from bilge; and for use as a fire pump.

In the main journal of the crank shaft, and in the forward crank, there are holes caused by defective welding, but not serious enough to condemn the shaft.

Two boilers, two furnaces in each, with return horizontal fire tubes; no superheating attachment. The steam space in these boilers is insufficient, causing them to foam seriously; and we recommend, to remedy this evil, an addition of six feet to the height of the present steam drum.

With the above exception, and some defective tubes, the boilers are in good condition.

One standing smoke pipe in good order.

The screw has four blades.

Coal bunkers are in good order.

The machinery and boiler are fit for service.

STANDISH.

Iron tug, classed as fourth-rate, and built by James Tetlow, Chelsea, Massachusetts, in 1865.

Has one vertical inverted-cylinder engine, with independent steam-reversing cylinder; no independent cut-off. Duplicate of the machinery in the Mayflower.

Has a jet condenser, and a distilling apparatus.

The screw is four-bladed and fixed.

There are two boilers, containing two furnaces each, with return horizontal fire tubes.

One standing smoke-pipe in good order.

Coal bunkers in good condition.

The machinery is fit for service.

The boilers are now being repaired with new tubes and an additional steam drum.

STEAM LAUNCH NO. 4.

She has one vertical inverted-cylinder engine—non-condensing. Cylinder nine inches diameter, stroke of piston nine inches. Engine is geared so that screw makes two revolutions to each double stroke of the piston. One independent steam pump.

The screw is fixed, and has four blades.

One cylindrical boiler with one furnace, and horizontal fire tubes.

One standing smoke-pipe in good order.

The board found machinery and boiler in service, and in good condition.

PHILADELPHIA.

At this navy yard, engines afloat were found on board of the Dictator, classed as first-rate; Cambridge, Juniata, Miantonomoh, classed as second-rates; Canonicus, classed as third-rate; Pinta, Glance, Sorrel, Pilgrim, classed as fourth-rates; dredging machine; dry-docks; steam launch.

DICTATOR.

Classed as first-rate, and was built at New York, in 1864.

Single-turret iron monitor ram, with two fifteen-inch guns in the turret. Vessel constructed to act as a ram at each end. Spar deck and sides covered with armor plating; no anchor-well in bow; bomb-proof pilot house over turret, ventilating pipes over engine room, and just abaft the forward ram.

Machinery.—Two main engines of the Ericsson vibrating-lever type; cylinders one hundred inches in diameter, and stroke of piston four feet. Half trunk pistons. Two jet condensers; independent cut-off gear; two air pumps, worked from main engine rock-shafts; one direct-acting horizontal vacuum engine, with an independent jet condenser for condensing the exhaust steam from all the auxiliary engines, and general purposes; three direct-acting blower engines for ventilation of the ship, and increasing the draught in the boiler furnaces; two pumping engines connected for fire pumps, or to pump water from or into the boilers, from the bilge, or into the reversing or cut-off cylinders; two vertical cylinder direct-acting engines for anchor hoisting; one rotary steam engine for hoisting ashes from the fire-room; one rotary engine for working one of the guns in the turret; and two direct-acting horizontal cylinder engines for turning the turret.

Boilers.—Six of the vertical water tube variety, Martin's patent, with fifty-six furnaces in all, arranged in two tiers, one above the other, and placed three on each side of the vessel, with a fore and aft fire-room between them. Four of these boilers contain ten furnaces each, while the two next the engine-room have eight furnaces each. They have no superheating apparatus. The boiler tubes are of iron.

One smoke-pipe in good condition.

Eleven water-tight coal bunkers of iron in good condition.

One four-bladed screw in good condition.

Condition.—The cut-off valve eccentrics are of brass, with wrought-iron straps. These eccentrics were slightly cut, but have been scraped to a good surface.

Engines and boilers having been tested with steam on the 22d June, in presence of the board, were found efficient and fit for service.

Examined the boilers with a view to determine the practicability of reducing their height by removing furnaces. The object of the proposed change in these boilers is to dispense with a tier of furnaces, as to fire both tiers requires more men than can be berthed in this vessel. The change will also have the effect of diminishing the weight of the boilers, thereby improving the trim of the vessel; of diminishing their tendency to foaming; and of increasing their efficiency by giving additional space to introduce a superheating apparatus, thereby greatly increasing their economy in the combustion of coal.

By bringing the vessel into proper trim, her speed will undoubtedly be increased.

PUSHMATAHA, NOW CONGRESS.

Classed as second-rate, and was built at Philadelphia in 1867.

Has two horizontal-cylinder back-acting engines, cylinder 60 inches, and stroke of pistons 3 feet. Composition pistons in main cylinders; double piston rods. No independent cut-off. Waddell plates under main valves.

Main crank-pin brasses of the forward engines were cracked during the trial of the machinery, but new ones have been ordered to replace them.

One Sewell's surface condenser. Two Sewell's steam pumps, No. 8. In the port steam pump we found all the follower bolts of the water piston broken except one.

One distiller—vertical tubes, through which the condensing water passes.

Boilers.—Four main boilers, containing seven furnaces each, with return horizontal fire tubes. Two superheating boilers with flues and horizontal tubes placed between the main boilers and the engines. No superheating apparatus in the uptakes. No ash-pit doors.

Two standing smoke-pipes with steam jets in them. Plaster of Paris cement required about smoke-pipe hatch coamings.

One four-bladed screw.

Coal bunkers on berth deck, as well as below it.

Condition.—All parts of the machinery, boilers, and bunkers, new; in good condition (with exceptions named) and fit for service.

The remarks made in the case of the *Severn*, and the modifications suggested, apply equally to this vessel, as they are essentially duplicates of each other.

JUNIATA.

Classed as second-rate, and was built at Philadelphia in 1861.

Machinery.—Two horizontal-cylinder back-acting engines, single piston rods. Diameter of cylinders 42 inches, stroke of piston 30 inches. No independent cut-off.

Packing rings on saddle plates of main valves, not adjustable by those in charge, while under steam, which is a defect.

One Sewell's surface condenser. Two Sewell's steam pumps, No. 5. Four cylindrical distillers. One syphon steam pump, No. 5.

In main engine air and circulating pumps, one is used as a circulating pump, and the other is used as an air pump, which is a bad arrangement.

Boilers.—There are three vertical water tubular boilers: starboard main boiler has seven furnaces, port one six furnaces, and the auxiliary boiler has one furnace—making fourteen furnaces in all. The boilers have no ash-pit doors. These boilers have recently received extensive repairs; an entire new set of composition tubes, and new water bottoms; and all the stays overhauled.

Holes in the tube sheets for 96 tubes have been plugged up, as there was no room to get them in.

There is one telescopic smoke-pipe, with a steam jet in it for increasing the draught, in good order.

The coal bunkers are new.

Condition.—The repairs on the machinery and boilers in this vessel are nearly finished, and when completed all parts will be ready for service.

Screw, two-bladed—hoisting.

MIANTONOMOH.

Iron clad, classed as third-rate, and was built at Brooklyn, New York, in 1864.

Two turrets, each built of ten 1-inch plates, with base ring $5\frac{1}{2}$ inches thick by 12 inches deep. The armament is four 15-inch guns. Wooden hull; deck armor plates covered with plank.

Machinery.—This vessel has twin screws driven by two pairs of horizontal cylinder back-acting engines; single piston rods; no independent cut-off. Waddell plates under the main slide valves. Cylinders are 30 inches in diameter by 2 feet stroke of piston. The air and circulating pumps have the same piston, two of them for each pair of engines.

Six oscillating engines used as blower engines, two in engine-rooms, two on berth deck, and two in steerage; and two pairs of direct-acting engines for turning the turrets—all in condition fit for service, having recently been repaired. All these small engines exhaust into the starboard main condenser—should also connect with the port main condenser.

Boilers.—Four vertical water tubular boilers of the Martin type, four furnaces in each; no superheating apparatus.

Condition—Machinery.—Valves in good order, pump pistons in good order, and newly fitted. Main injection valves leaking badly—require grinding in their seats. The after journal of port main crank shaft is badly cut; largest diameter is 8 inches; smallest $7\frac{1}{8}$ inches. This bearing was 21 inches long; its effective length has been reduced by cutting to $14\frac{1}{2}$ inches. The forward journal of starboard main crank shaft is also badly cut; its largest diameter being 8 inches, and smallest $7\frac{3}{8}$, and the middle bearing in this crank shaft is also in bad condition.

These crank-shaft journals have been nearly ruined, evidently by sheer carelessness; allowing them to become extremely hot, and then running the engines while they were in this condition. As the journals were originally much longer than the usual proportion, the crank shafts can be still made effective by trueing them up, and fitting new brasses about the bearings.

Two surface condensers. The packing at the ends of many of the tubes requires renewal, and many of the tubes being split, new ones are required.

Condition—Boilers.—The interior surface of the boilers are protected by fish oil from oxidation. The iron tubes in these boilers are worn so thin by use that they are no longer fit for service, and as there is a sufficient number of old composition tubes in store in the yard, (Philadelphia,) which can be used by cutting off the defective ends, we recommend that they be taken to replace these iron tubes. The other portions of the boilers are fit for service.

One standing smoke-pipe in good order.

The coal bunkers are also in good condition.

Two four-bladed screws, (twin.)

The vessel generally requires a thorough overhauling to render her fit for service, as also all her machinery.

CANONICUS.

Single-turret monitor, classed as third-rate. Built at Boston, Massachusetts, 1864.

Has two Ericsson half-trunk vibrating-lever engines; an independent fixed cut-off; one Stimers's surface condenser.

Two air and two circulating pumps, independent of the main engines, and worked by one vertical-cylinder beam engine. The main engines can be worked high pressure, and surplus steam can discharge into condenser instead of through escape pipe into the atmosphere. One duplex Worthington pump with four pumping cylinders.

Two Knowles's patent steam pumps, connected to pump water into boilers, and as fire or bilge pumps. Two direct-acting vertical cylinder

blower engines. Two direct-acting engines for turning the turrets. Two Dimphel blowers exhausting into fire-room.

Boilers.—There are two main boilers with return horizontal differential fire tubes, Stimers's patent, with six furnaces each, and two auxiliary boilers containing one furnace each.

Condition.—The engines have been tried under steam, and found effective and in good condition.

Boilers have just been repaired, and are reported in good condition by the inspecting engineer, having been thoroughly tried under steam.

One smoke-pipe, with many patches, but otherwise in good order.

Coal bunkers in good condition.

Screw fixed; in good order.

PINTA.

Iron tug, classed as fourth-rate. Built at Chester, Pennsylvania, 1864.

One vertical inverted-cylinder engine, 44 inches diameter by 30 inches stroke, with independent steam and exhaust valves, two stems on each. Independent reversing cylinder. Jet condenser. Link motion loose from wear, and requires adjusting. Main journals of crank shaft cut, and require truing up. One distiller. One Sewell pump, besides being used for general pumping purposes, drives the fan. The blower is of no use, openings being plugged up on account of back draught in boilers; would recommend its removal.

Machinery built by Reamy, Son & Archbold, Chester, Pennsylvania, in 1864.

Boilers.—Two horizontal return fire tube boilers, two furnaces in each.

Iron coal bunkers in good condition.

Four-bladed iron screw.

One standing smoke-pipe in good order.

Carries one hundred tons of coal, and burns ten tons per day while steaming.

This machinery is in service, and, with above-named exceptions, is in good condition.

GLANCE.

Wooden tug, classed as fourth-rate. Built at Chester, Pennsylvania, 1863.

One vertical inverted-cylinder engine, 20 inches diameter, 20 inches stroke of piston. Slide, steam, and independent exhaust. Link motion, high pressure. Built by Reamy, Son & Archbold, Chester, Pennsylvania, 1863.

No distiller. Steam pump, No. 5, should have suction hose for pumping water from other vessels. Piston requires overhauling, springs being loose. One No. 5 Sewell pump, and one No. 2.

Boiler.—One horizontal return tubular boiler, flues from surface. Two furnaces. Boiler two years old. No water bottom. Boiler lifts water six inches or eight inches, steam space being insufficient.

Coal bunker, at present of wood, should be of iron. Carries eleven tons of coal. Ten tons of coal last seven days, making four trips per day from navy yard to League Island, twenty-four miles.

Smoke-pipe in bad condition, requiring some new sheets.

The screw is four-bladed, and of cast iron; two blades are now of wrought iron in place of two broken by ice.

Burns two hundred and forty pounds coal per hour.

Boat is in service, and, with above-named exceptions, in good condition.

SORREL.

Wooden tug, classed as fourth-rate. Built at Philadelphia, 1864.

Machinery.—One inverted vertical-cylinder engine; no condenser; no independent cut-off; link motion. One Sewell's steam pump, No. 5, with sixty fathoms of suction hose to pump out other vessels.

Boilers.—One horizontal tubular boiler, one furnace, with tubes running over it.

Condition.—Machinery is in a fair condition, fit for service.

Boiler tight, and in good condition.

Smoke-pipe in good order.

Four-bladed iron screw; corner of blades broken off, but screw remains efficient.

PILGRIM.

Iron tug, classed as fourth-rate, built by Pusey, Jones & Co., Wilmington, Delaware, 1864.

Machinery.—One vertical, inverted cylinder-engine; no independent cut-off; jet condenser. This machinery has just been overhauled, and is ready for service after packing and adjusting. One Sewell's steam pump. One fan, not used.

Boilers.—One horizontal tubular boiler; three furnaces; tubes return over furnaces.

One standing smoke-pipe in good condition.

Iron coal bunkers, in good order.

One four-bladed iron screw.

Two fire-room floor plates, broken.

Condition.—Boat ready for service.

DREDGING MACHINE.

Machinery.—Two horizontal direct-acting cylinders, bolted on sides of boilers, 7 inches by 12 inches, high pressure, 70 pounds steam; in use.

Boilers.—One cylindrical, return-tubular boiler; two furnaces, in good order.

Condition.—Gearing considerably worn; otherwise in good repair, and in service.

FLOATING DRY DOCK—NINE SECTIONS.

Machinery.—Four vertical-cylinder beam engines, 12 inches diameter, by 24 inches stroke of piston; slide valves; no independent cut-off; no condenser.

Boilers.—Four horizontal tubular boilers, (no return tubes,) one furnace in each.

Condition.—Tin covering of this dock is defective, and gearing somewhat worn, but its machinery of engines and boilers is fit for service.

FLOATING DRY DOCK—FIVE SECTIONS.

Machinery.—Two beam engines, 12 inches diameter by 24 inches stroke; slide valves; no independent cut-off; no condenser.

Boilers.—Two horizontal tubular boilers, (no return tubes,) one furnace in each.

Condition.—Boilers require slight repairs, but are in use; the engines and boilers are fit for service in their present condition.

STEAM LAUNCH, NO. 2.

Picket boat of wood.

Machinery.—One Root's rotary engine as motive-power, driving one iron four-bladed screw. One Woodward's pumping engine, connected with suction-hose to pump water from other vessels, or for extinguishing fires. One small engine for feed-pump.

Boilers.—One horizontal tubular boiler, (no return,) with one furnace. Standing smoke-pipe in good order.

Condition.—The pumping apparatus is effective. Speed of boat is so small as to barely stem the tide.

Hull rotten about stern. Decks and joiner work of hull require some repairs.

Machinery and boilers fit for service, with the exception of the Root engine, which leaks badly about valve and piston, and requires to be made tight.

LEAGUE ISLAND.

At this navy yard engines afloat were found on board of the Chattanooga and Puritan, classed as first-rate; Passaic; Nantucket; Koka; Napa; Modoc; Squando, now Algoma; Suncook; Cohoes; Naubuc, now Minnetonka; Yazoo; Waxsaw, now Niobe; Nausett; Tunxis; Nahant; Lehigh; Catskill; and Sangamon, now Jason; classed as third-rate.

CHATTANOOGA.

Classed as first-rate; built at Philadelphia in 1864.

Machinery.—Two horizontal cylinder back-acting engines; double piston-rods; no independent cut-off; link motion.

Independent hand-gear for working the engine. Two main slide steam valves, working independently in each steam chest.

Steam reversing cylinder.

Machinery built by Merrick & Son, Philadelphia, 1866.

One Allen's surface condenser, in good condition. Wood packing. Independent centrifugal circulating pump, worked by four oscillating engines, two at each end of the pump; this proved inefficient. Four independent steam pumps, Sewall & Cameron's, connected for fire and general pumping purposes; require general overhauling.

Condition.—This vessel is admitted on all hands to be a signal failure in hull; but as to machinery, when the new crank-shaft now made and lying at the Philadelphia navy yard comes to be substituted for the one in place, and some minor repairs have been made, it will be in good order and fit for service.

The hull of this vessel should be disposed of, and the steam machinery removed and retained for use in the service.

PURITAN.

Iron monitor, classed as first-rate. Built at Brooklyn, New York, 1864.

Hull on inside requires paint to preserve it. Spar deck requires, to preserve it, a coating of stuff and sawdust.

Engines.—Two Ericsson vibrating lever half-trunk engines; vertical cylinders, 100 inches in diameter, four feet stroke of piston; independent, fixed cut-off. These engines are unfinished; main engine frames and pillow blocks are in place, but brasses are not bored out; condensers and air pumps in place, but no air-pump valves.

Condition of engines, &c.—Air pumps have their outboard connections complete; and the main throttle valves, connecting-rods and brasses, and six safety-valve chests and valves are all complete. Water closet, outboard pipes and cocks, and all outboard connections are complete with blank flanges.

No crank-shaft, no main rock-shaft, no pilot-house, no anchor-hoisting gear or engines. No blower engine, blower or ventilator pipe over engine-room; no ventilating pipe forward—are in the vessel.

Main balance wheel is in ship, and cut-off cylinder is also in ship, but not in place.

Main and cut-off steam valve seats and faces are rusty—need taking out and cleaning; the main cylinders on interior surfaces and surface of trunks, and main piston rings are also rusty.

Main throttle-valve chests are in place. All uptake doors are in place on boilers, but feed, blow, stop, and safety-valve chests are not fitted to them.

Two blowers, and two vertical cylinder, direct-acting engines. Two turret engines—horizontal cylinders, direct acting.

Turret shaft not in place, and some portions of turret gear are missing. Turret plates for one turret, and plates for smoke-pipe, all rusty, and stowed on berth deck forward.

One blower in after turret compartment, but no blower engine, and no turret gear.

Boilers.—Six Martin vertical tubular boilers, containing fifty-six furnaces, arranged in two tiers, one furnace above another in a fore-and-aft fire-room, all new and in good condition; but their pipe and valve connections have not yet been made.

Furnace doors and grate bars are stowed in fire-room, and some grate bars are also stowed on berth deck forward.

No smoke-pipe erected.

Coal bunkers are all water-tight and complete, with apparatus for filling them with water when coal is expended from them. These are in good condition.

One four-bladed cast-iron screw in good order.

This vessel, as yet, has no turret erected.

Her hull is of masterly workmanship, and it is twenty-five feet longer than the Dictator's.

In the opinion of the board it would be well, when her completion is taken in hand, to take away one tier of furnaces from her boilers, and introduce superheating arrangements in the uptakes—to have but one, instead of two turrets, and that to be twenty inches in thickness, and large enough to receive two 20-inch guns, using any surplus buoyancy that may remain, as a consequence of these alterations, by adding to the thickness of the deck armor.

Thus arranged, with a due regard to her trim by a proper disposition of weights, she certainly would be a very formidable vessel, and probably prove a knot faster than the Dictator.

It would not, perhaps, cost more to complete her as suggested, than according to the original plan.

PASSAIC.

Single-turret monitor, classed as third-rate. Built at Brooklyn, New York, 1862.

Iron hull; oak deck beams. Many parts of the hull are rusty, and require cleaning and painting.

Machinery.—One pair of Ericsson's vibrating lever engines; independent fixed cut-off; gridiron slide. Two ports in cut-off valve seat, 17 inches long by $2\frac{3}{4}$ inches wide. One duplex Worthington pump, valve seat cut. Two Worthington pumps, all in good condition. One Andrews's centrifugal pump, driven by oscillating engines. One jet condenser. Two direct-acting blower engines. Air pump, double-acting, worked by port main engine rock shaft.

Boilers.—Two Martin boilers, three furnaces in each, iron tubes. Braising and tubes very weak from oxidation. Boilers not fit for service.

One standing smoke-pipe in good order.

One four-bladed iron screw, condition not ascertained, vessel being afloat.

Coal bunkers in good order.

Articles required, repairs necessary, &c.—Both cylinder-heads of main engines are broken through the flange; new ones required.

Lower turret engine to be overhauled; it is rusty inside and out.

Four studs for port piston.

Three studs for follower of starboard main engine.

One brass and cap for valve rock shaft, starboard engine, gone; new one required.

Delivery valve seat of duplex pump cut.

Bolts in seats of air-pump receiving valves are much worn; require new ones.

Double-acting air-pump, barrel badly cut; requires re-boring.

All outboard pipes have blank flanges inside of the ship, and are plugged up.

Blowers and blower-pipes are nearly ruined by oxidation.

Anchor-hoisting gear to be overhauled.

Turret supported on fore-and-aft bulkheads, connected to athwartship bulkheads extending to each side of the ship, which is a good arrangement.

The moving parts of the machinery are disconnected, and, with exceptions named, are in good condition.

NANTUCKET.

Single-turret iron monitor, twin screws, classed as third-rate. Built at Boston, Massachusetts, in 1863.

Machinery.—Has two of Ericsson's vibrating lever engines, with horizontal cylinders, $\frac{1}{2}$ trunks; gridiron slide valves, and independent fixed cut-offs. The main cylinders are in good condition, as are also the rock shaft and connecting journals, main shaft journals, valves, and eccentrics, together with their connections and journals. The engines are disconnected and have been overhauled; pistons are out of cylinders; some bolts are required to secure trunks to body of pistons; piston rings are cleaned, black-leaded, and in good order.

There are two steam pumps of Knowles's patent, the piston-rings and springs of which are reported to be at the navy yard.

One duplex Worthington pump in bad condition; all the bolts and nuts in water valve-chests are nearly gone by oxidation.

One Andrews's centrifugal pump, driven by a pair of oscillating engines; these engines are in good condition. Two direct-acting blower engines, connected to fans in turret chamber, and two direct-acting engines for turning the turret.

Boilers.—There are two Martin boilers, with three furnaces in each, iron tubes. These boilers are in bad condition, and entirely unfit for service until repaired.

The coal bunkers are in good condition.

One standing smoke-pipe in good order.

One propeller, which could not be examined.

General condition.—Deck plates of vessel and iron plates of hull in bad condition. Found one deck beam in engine-room broken, and many ruined by dry rot.

The entire interior plating of hull is very rusty. Joiner work in bad condition.

Spar deck leaking through plating and deck planking in many places. Found fungi growing between spar-deck beams and planks.

Ventilation pipes ruined by rust; new ones required if vessel is repaired. Turret and blower engines and fans, and turret gear, require overhauling, being rusty. Centrifugal pump fans are in bad condition; recommend these pumps to be taken out, and four steam syphon pumps to be substituted.

All the motive machinery requires cleaning and general overhauling to fit it for service.

KOKA.

Light-draught iron monitor, twin screws, classed as third-rate. Built at Camden, New Jersey, in 1865.

Vessel is built of iron with solid curved deck; side armor three inches thick; deck armor consists of two one-half inch plates. Sides of hull have been raised.

Machinery.—Has two inclined direct-acting engines, designed by A. C. Stimers; slide valve; no independent cut-off; cylinders 22 inches in diameter, and 30-inch stroke. Each engine operates a separate propeller. All portions of the engines are in good condition.

The condenser, which is of the Stimers's patent, is, to all appearance, in good condition.

Two of Andrews's centrifugal pumps, each driven by a pair of oscillating engines; the engines are in good order. Two Sewell pumps, size No. 5, in good order.

Boilers.—There are two Stimers's differential tubular boilers, with two furnaces at each end of each boiler, and the tubes between each pair of furnaces. These boilers are in excellent condition, but the brown zinc paint in them is scaling off and is no protection. The tubes are of iron. One smoke-pipe in good condition. Coal bunkers in good order. Twin screws, four-bladed, of iron.

NAPA.

Light-draught iron vessel, twin screws, fitted as torpedo boat, and classed as third-rate. Built at Wilmington, Delaware, in 1865.

Bomb-proof pilot-house 10 inches thick. One 11-inch pivot gun forward of pilot-house on spar deck, unprotected. Vessel used as officers' quarters in back channel, with roof and rooms over spar deck.

Machinery.—Two inclined, direct-acting engines; no independent cut-off; link motion; jet condenser; adjustable collar thrust; two air pumps worked by main engines; two Worthington independent steam-pumps; one Andrews's centrifugal pump on berth-deck.

Main valves work under a saddle-plate, which is kept on by springs.

Engine frames are a part of the vessel. Engines can exhaust through deck.

One Root's engine for working torpedo machinery. Two direct-acting blower engines, with two blowers.

Machinery built by Harlan, Hollingsworth & Co., Wilmington, Delaware, 1864.

Boilers.—Two boilers, four furnaces in each; Stimers's differential tubes—new and in good condition.

One smoke-pipe in good condition.

Two four-bladed iron screws.

Coal bunkers in good order.

Condition.—The centrifugal pump (Andrews's) and the direct-acting blower engine are in good condition. The Root engine needs cleaning and repairing. All the other machinery needs cleaning, packing, connecting, and adjusting to fit it for service.

MODOC.

Light-draught, armored vessel, twin screws, classed as third-rate. Built at New York, 1865.

Platform for one pivoted 11-inch gun, unprotected on spar deck. Has torpedo apparatus, but no rail or gun on vessel. No turret. One bomb-proof pilot-house 10 inches thick.

Machinery.—Two inclined engines, one on each side the vessel, each driving an independent screw. Diameter of cylinder 22 inches; stroke of piston 30 inches. No independent cut-off; link motion; two air pumps, worked from main engine crossheads; one jet condenser. Two Woodward steam-pumps, 12 inches diameter of cylinder. Two direct-acting blower engines, each driving one Dimpfel fan. One Root's rotary engine for working torpedo gear. In ward-room, forward part of the vessel, there is one Andrews's centrifugal pump; its driving power is two oscillating engines.

Boilers.—Two Stimers's differential, horizontal tubular boilers, four furnaces in each; two furnaces at each end of boiler, and two tube-boxes between them.

Condition.—Some leaks through deck. Joiner work in good condition. Heavy anchor hoisting gear in bow of vessel under spar deck. Hull requires cleaning and painting; many of the deck lights require new glasses. All machinery and boilers require cleaning, packing, and adjusting, but, in other respects, would be ready for service if connected.

One standing smoke-pipe in good order.

Two four-bladed, cast iron screws; starboard screw revolves to the right, and port screw to the left, viewed from the stern.

Coal bunkers new and in good condition.

Machinery built by J. S. Underhill, New York, 1865.

NOTE.—Bell of Yazoo is hung on this vessel.

SQUANDO, NOW ALGOMA.

Light-draught iron vessel, single turret, twins crews, classed as third-rate. Built at Boston, Massachusetts, in 1865.

Two 11-inch guns. Turret thickness is eight plates, each one inch thick. Pilot-house, bomb-proof, 10 inches thick over turret. Solid deck covered with iron plates. Turret steps on box built over keel, but not connected to athwartship bulkheads.

Machinery.—Two inclined engines, 22 inches diameter 30-inch stroke.

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Link motion; slide valves; no independent cut-off; Stimers's surface condenser; two independent air and circulating pumps, driven by one vertical cylinder beam engine. Two Worthington steam pumps; two direct-acting blower engines connected to drive two fans in turret chamber; two direct-acting turret engines. One centrifugal pump in engine-room, and one in ward-room, each driven by two 10-inch diameter oscillating cylinder engines, by 7-inch stroke. No. 9 pumps.

Boilers.—Two boilers, Stimers's differential tubular, four furnaces in each; two furnaces at each end of each boiler, with tube boxes between them. Boilers placed on each side of the vessel in fore and aft fire-room.

Height of boilers 6 feet 10 inches; furnaces, each 3 feet 1 inch by 6 feet over grate bar. Length of tube boxes in fire-room, 11 feet 10 inches; length of furnaces in ditto, 13 feet 4 inches = 25 feet 2 inches total length of boiler.

Length of boiler athwartships, 9 feet through furnaces.

Condition of machinery.—Requires cleaning, connecting, packing, and adjusting to fit it for service; and some leaks about pipes to be made tight. Inside of hull to be cleaned and painted. Joiner work good.

One ventilating pipe on deck, and one standing smoke-pipe; also one galley smoke-pipe—all in good condition.

Two four-bladed screws, right and left.

Coal bunkers in good order.

SUNCOOK.

Light-draught iron monitor, twin screws, classed as third-rate. Built at Boston, Massachusetts, 1865.

Water compartments all around the sides of the hull. The hull is plated with one-half inch iron on 4-inch by 4-inch by one-half inch frames, angle iron. The sides of this hull have been raised 22 inches above the original plan, and there are no valves or pipes for filling the water compartments.

One turret of eight one-inch laminated plates in thickness, with a base ring. The turret is supported by a shaft through its center, which steps in a casting supported by a box built upon the floor plates of the hull, and two athwartship, and two fore and aft iron bulkheads.

Steering gear in pilot-house, and independent steering gear in turret chamber.

Vessel heated by steam pipes.

Machinery.—Two inclined, direct-acting engines, 22 inches diameter of cylinder, and 30-inch stroke of piston; each engine works an independent screw. Link motion; no independent cut-off; Stimers's surface condenser, and Newton's air and circulating pumps, worked by one vertical cylinder, one-half trunk and beam engine. Two independent steam pumps, Knowles's patent; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, driving two Dimpfel fans; two direct-acting engines for turning turret.

Boilers.—There are two boilers in this vessel, Stimers's patent with differential, horizontal fire tubes, four furnaces in each boiler, two at each end, with the tube boxes between them, and tubes varying, in inside diameter, from 3 inches at the bottom to 1½ inch at the top. These boilers have been protected on the inside with fish oil, and painted on the outside with brown zinc paint; they are new and only require cleaning and painting to preserve them.

One standing smoke-pipe in good condition, with a bomb-proof grating in line with the deck in it.

Coal bunkers are new and in good order.

Two four-bladed iron screws.

Condition.—Hull has a solid curved spar deck of wood, with iron armor plates over it. There are many leaks through the deck, and some of the deck lights need repairs.

The machinery needs cleaning, connecting, packing, and adjusting to fit it for service.

The screws work in a box in the overhang, and so near the counter that their efficiency is greatly impaired.

Anchor gear in the bow of the vessel has one inch chain.

One fan had water in it, and its under side is ruined; and galley-pipe is rusted below spar deck to such an extent that it is falling in pieces.

COHOES.

Light-draught iron monitor, single turret, twin screws, classed as third-rate. Built at Brooklyn, New York, in 1865.

Water compartments all around the sides of hull; spar deck covered with iron plates. Two 11-inch guns in the turret; muzzles of these guns have been turned off to 17 inches diameter, to permit their being run out the ports.

One ventilator pipe over ward-room. Galley pipe alongside turret, and smoke-pipe abaft turret, are the only pipes above deck. Bomb-proof pilot-house, 10 inches thick, rests on beam over turret shaft. Turret is supported by a central shaft, which rests on a box built over the floor plates of the hull, with two diagonal braces, one on each side, extending from the turret step to the fore and aft iron bulkheads. These fore and aft bulkheads are connected to two athwartship bulkheads, under the turret, which extend entirely across the vessel.

Machinery.—Is duplicate of that in the Suncook. All the various gauges, instruments, and piston springs of small engines have been sent to the Philadelphia navy yard.

Two Woodward's steam pumps, two Andrews's No. 9 pumps, two blower engines, and two turret engines are also in this vessel.

Boilers.—Are duplicates of those in the Suncook in type, number, and arrangement. Some of the iron tubes are much corroded near the inboard ends by water which has come down the smoke-pipe, but are still fit for service.

One standing smoke-pipe in good condition.

Two four-bladed iron screws.

Coal bunkers in good order.

NAUBUC, NOW MINNETONKA.

Light draught iron torpedo boat, twin screws, classed as third-rate, built at Brooklyn, New York, in 1865.

Water compartment, two feet across, between the inside and outside of hull, on the sides of the vessel.

There is one 11-inch pivot gun on a platform forward of the pilot-house, unprotected.

The spar-deck is built up solid, with 14-inch depth of deck beam, covered with 1-inch iron plates.

Machinery.—The motive power in this vessel consists of two inclined engines, 22-inch diameter of cylinder by 30-inch stroke of piston, direct-

acting. Main valves have link motion; no independent cut-off; one jet condenser; air pumps worked from main engine. Two independent steam pumps, Woodward's patent. In the turret chamber there is one Root's rotary engine for working the torpedo gear, and two direct-acting blower engines connected to drive two Dimpfel fans. One Andrews's centrifugal pump in ward-room, the motive power consisting of two oscillating engines.

Vessel has steam heaters.

Boilers.—There are two boilers in the vessel, with four furnaces in each, and horizontal differential fire tubes—Stimers's patent.

Condition.—Steam heaters are in a rusty condition. There are some leaks through the deck plating and spar deck in this vessel. The machinery needs cleaning, connecting, packing, adjusting, and some slight repairs to fit it for service.

The boilers are coated with fish-oil on their interior surfaces, which has proved an efficient protection; but rain water down the smoke-pipe has rusted the inboard end of some of the tubes, which being of iron, may require renewal.

There are six athwartship bulkheads in this vessel; one in the forward part of the fire-room, two under the turret, two forming bulkheads of ward-room, and one forward of the cabin.

The general condition of the vessel is such as requires cleaning and painting to preserve it.

One standing smoke-pipe in good condition.

Coal bunkers new, and in good order.

Two four-bladed iron screws.

YAZOO.

Light draught iron monitor, twin screws, classed as third-rate, built at Philadelphia in 1864.

Water compartments all around the sides of the hull. The hull is plated with $\frac{1}{2}$ -inch iron on 4-inch by 4-inch by $\frac{1}{2}$ -inch frames, angle iron. The sides of this hull have been raised 22 inches above the original plan, and there are no valves or pipes for filling the water compartments.

One turret of 8 1-inch laminated plates in thickness, with a base ring. The turret is supported by a shaft through its center, which steps in a casting supported by a box built upon the floor plates of the hull; and two athwartship, and two fore and aft bulkheads.

Steering gear in pilot-house, and independent steering gear in turret chamber.

Vessel heated by steam pipes.

Machinery.—Two inclined, direct-acting engines, 22 inches diameter of cylinder, and 30-inch stroke of piston, each engine works an independent screw. Link motion; no independent cut-off; Stimers's surface condenser, and Newton's air and circulating pumps, worked by one vertical cylinder, $\frac{1}{2}$ trunk and beam engine. Two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two Sewell steam pumps; two direct-acting blower engines, driving two Dimpfel fans; and two direct-acting engines for turning turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential, horizontal fire-tubes, four furnaces in each boiler; two at each end, with the tube boxes between them, and tubes varying, in inside diameter, from 3-inch at the bottom to $1\frac{1}{2}$ -inch at the top.

These boilers have been protected on the inside with fish-oil, and

painted on the outside with brown zinc paint; they are new, and only require cleaning and painting to preserve them.

One standing smoke-pipe in good condition, with a bomb-proof grating in it in line with the deck.

Coal bunkers are new, and in good order.

Two four-bladed iron screws.

Condition.—This vessel is in better order throughout than any other of the light draught vessels at League Island, details of the hull, machinery, and boilers being fit for service with slight repairs.

WAXSAW, NOW NIOBE.

Light draught iron vessel, twin screws, classed as third-rate. Built at Baltimore in 1865.

Water compartments all around the sides of hull. The sides of this hull have been raised twenty-two inches above the original plan; and there are no valves or pipes for filling the water compartments.

One turret of eight 1-inch laminated plates in thickness, with a base ring. The turret is supported by a shaft through its center, which steps in a casting supported by a box built upon the floor plates of the hull; and two athwartship and two fore and aft bulkheads of iron.

Steering gear in pilot-house, and independent steering gear in turret chamber.

Vessel heated by steam-pipes.

Machinery.—Two inclined, direct-acting engines, twenty-two inches in diameter, and 30-inch stroke of piston; each engine works an independent screw. Link motion; no independent cut-off; Stimers's surface condenser; and Newton's air and circulating pump, worked by one vertical cylinder, one-half trunk and beam engine. Two Worthington steam pumps; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, driving two Dimpfel fans; and two direct acting engines for turning turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential, horizontal fire tubes, four furnaces in each boiler; two at each end with the tube boxes between them, and tubes varying, in inside diameter, from three inches at the bottom to one and a half inch at the top. These boilers have been protected on the inside with fish oil, and painted on the outside with brown zinc paint; they are new, and only require cleaning and painting to preserve them.

Condition.—Port blower engine cylinder is broken by water freezing in it; new one required. Generally, the hull, machinery and boilers require cleaning and painting to preserve them properly.

All of the light draughts have turrets eight inches thick, and bomb-proof pilot-houses ten inches thick, built up of 1-inch iron plates. The pilot-house covers are built of dishd plates and oak timbers; two 1-inch plates above six inches thick of oak, and two 1-inch plates under the oak. The turrets have a base ring five inches thick by fifteen inches deep.

One standing smoke-pipe in good condition, with a bomb-proof grating in it in line with the deck.

Coal bunkers are new, and in good order.

Two four-bladed iron screws.

NAUSETT.

Light draught iron monitor, twin screws, classed as third-rate. Built at Boston, Massachusetts, in 1865.

Water compartment all around the sides of hull. The sides of this

hull have been raised twenty-two inches above the original plan; and there are no valves or pipes for filling the water compartments.

One turret of eight 1-inch laminated plates in thickness, with a base ring. The turret is supported by a shaft through its center, which steps in a casting supported by a box built upon the floor plates of the hull; and two athwartship and two fore and aft iron bulkheads.

Steering gear in pilot-house, and independent steering gear in turret chamber.

Vessel heated by steam pipes.

Machinery.—Two inclined, direct-acting engines, twenty-two inches diameter of cylinder, and thirty-inch stroke of piston; each engine works an independent screw. Link motion; no independent cut-off; Stimers's surface condenser; and Newton's air and circulating pumps, worked by one vertical cylinder, half trunk and beam engine. Two independent steam pumps, Knowles's patent; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, driving two Dimpfel fans, and two direct-acting engines for turning turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential, horizontal fire tubes; four furnaces in each boiler, two at each end, with the tube boxes between them, and tubes varying in inside diameter from three inches at the bottom to one and a half inch at the top. These boilers have been protected on the inside with fish oil, and painted on the outside with brown zinc paint; they are new, and only require cleaning and painting to preserve them.

Condition.—Hull has a solid curved spar deck of wood, with iron armor plates over it.

There are many leaks through this deck, and some of the deck lights need repairs.

The machinery needs cleaning, connecting, packing and adjusting to fit it for service.

The screws work in a box in the overhang, and so near the counter that their efficiency is greatly impaired.

One standing smoke-pipe in good condition, with a bomb-proof grating in it in line with the deck.

Coal bunkers are new, and in good order.

Two four-bladed iron screws.

TUNXIS.

Light-draught iron monitor, twin screws, classed as third-rate. Built at Chester, Pennsylvania, in 1864.

Water compartments all around the sides of the hull. The sides of this hull have been raised twenty-two inches above the original plan, and there are no valves or pipes for filling the water compartments.

One turret of eight 1-inch laminated plates in thickness, with a base ring. The turret is supported by a shaft through its center, which steps in a casting supported by a box built upon the floor plates of the hull; and two athwartship and two fore and aft iron bulkheads.

Steering gear in pilot-house, and independent steering gear in turret chamber. The pilot-house in this vessel is but eight inches thick, while those of all the other monitors have each a thickness of 10 inches.

Vessel heated by steam pipes.

Machinery.—Two inclined, direct-acting engines, 22 inches diameter of cylinder, and 30-inch stroke of piston; each engine works an independent screw. Link motion; no independent cut-off. Stimers's surface

condenser, and Newton's air and circulating pumps, worked by one vertical cylinder, one-half trunk and beam engine. Two Sewell's steam pumps; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, driving two Dimpfel fans; and two direct-acting engines for turning turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential, horizontal fire-tubes; four furnaces in each boiler, two at each end, with the tube boxes between them, and tubes varying in inside diameter from 3 inches at the bottom to 1½ inch at the top. These boilers have been protected on the inside with fish oil, and painted on the outside with brown zinc paint; they are new and only require cleaning and painting to preserve them.

Condition.—Hull has a solid curved spar deck of wood, with iron armor plates over it. There are many leaks through this deck, and some of the deck lights need repairs. The machinery needs cleaning, connecting, packing, and adjusting, to fit it for service.

The screws work in a box in the overhang, and so near the counter that their efficiency is greatly impaired.

One standing smoke-pipe in good condition, with a bomb-proof grating in it in line with the deck.

Coal bunkers are new, and in good order.

Two four-bladed iron screws.

NAHANT.

Single-turret iron monitor, classed as third-rate. Built at Boston, Massachusetts, in 1863.

Turret 11 inches thick, with base ring. Pilot-house over turret 8 inches thick. One 15-inch gun and one 11-inch gun in the turret. Spar deck covered with iron plating; side armor plating 5 inches thick.

Anchor-well in bow, and overhang at stern over screw and rudder.

Machinery.—Two Ericsson's horizontal cylinder, half-trunk, vibrating lever engines; cylinders 40 inches diameter, stroke of piston 20 inches. Independent cut-off; jet condenser; one double-acting air pump, worked by port main engine; one auxiliary condenser, with air pump, worked by a duplex Worthington engine, to receive exhaust steam from small engines; two independent Worthington steam pumps; one Andrews's centrifugal pump, driven by two oscillating engines; two direct-acting turret engines, and two direct-acting blower engines, driving two Dimpfel fans.

Boilers.—Two vertical water tubular boilers, Martin's patent, three furnaces in each.

One fixed smoke-pipe, not fit for service on account of shot-holes and oxidation; new one required.

One four-bladed screw, the condition of which, being under water, was not ascertained.

Condition.—The deck beams and decks, side armor, and all joiner work of hull, require extensive repairs; the iron plating of hull is very rusty inside and out, and requires cleaning and painting.

The main and auxiliary engines, with all their appendants, require general overhauling to fit them for service; journals to be trued up, broken brasses to be replaced with new ones; valve faces and seats trued up, and all parts to be cleaned and painted, as they are much injured by oxidation.

Boilers have iron tubes which are no longer fit for service; the water bottoms have many patches, and the boilers need extensive repairs to fit them for service.

The coal bunkers are in good order.

LEHIGH.

Single-turret iron vessel, classed as third-rate. Built at Chester, Pennsylvania, in 1863.

Single turret 11 inches thick, base ring. Pilot-house over turret 8 inches thick. One 15-inch gun and one 8-inch Parrott gun in the turret. Spar deck covered with armor plating; side armor plating 5 inches thick.

Anchor-well in bow, and overhang at stern over screw and rudder.

Machinery.—Two Ericsson's horizontal cylinder, half-trunk, vibrating lever engines; cylinders 40 inches diameter, stroke of piston 20 inches. Jet condenser; independent fixed cut-off; one double-acting air pump, worked by port main engine; one auxiliary condenser, with air pump, worked by a duplex Worthington engine, to receive exhaust steam from small engines; two independent Worthington steam pumps; one Andrews's centrifugal pump, driven by two oscillating engines; two direct-acting turret engines, and two direct-acting blower engines, driving two Dimpfel fans.

Boilers.—Two vertical water tubular boilers, Martin's patent, three furnaces in each.

One fixed smoke-pipe not fit for service on account of shot-holes and oxidation; new one required.

One four-bladed screw, the condition of which, being under water, was not ascertained.

Condition.—The deck beams and decks, side armor, and all joiner work of hull require extensive repairs; the iron plating of hull is very rusty inside and out, and requires cleaning and painting.

The 15-inch gun has an indentation on its muzzle ring and muzzle, caused by a shot striking it; and one of the casing plates has holes broken through it by pieces of the same shell, which is said to have exploded in the turret.

Moving parts are disconnected. Bearing surfaces protected with white and black lead and tallow.

Trunk stuffing-box glands, and main rock-shaft journal brasses, are missing. All outboard pipes have blank flanges inside the ship to prevent water coming in. Engine-room ladder requires new steps, and fire-room floor new floor plates in place of those broken.

Auxiliary condenser requires repairs, and also Worthington engine connected with it. Distilling apparatus requires overhauling.

The main and auxiliary engines, with all their appendants, require general overhauling to fit them for service; journals to be trued up; broken brasses to be replaced with new ones; valve faces and seats trued up, and all parts to be cleaned and painted, as they are much injured by oxidation.

Boilers have iron tubes which are no longer fit for service; the water bottoms have many patches, and the boilers need extensive repairs to fit them for service.

The coal bunkers are in good order.

CATSKILL.

Single turret iron vessel, classed as third-rate, built at Brooklyn, New York, in 1863.

Single turret, 11 inches thick, with base ring. Pilot house over turret 8 inches thick. One 15-inch and one 11-inch gun in the turret. Spar deck covered with armor plating; side-armor plating 5 inches thick. Anchor-well in bow, and overhang at stern over screw and rudder.

Machinery.—Two Ericsson's horizontal cylinder, half-trunk, vibrating lever engines, cylinders 40 inches diameter, stroke of piston 20 inches. Jet condenser, independent fixed cut-off, one double-acting air-pump worked by port main engine; one auxiliary condenser with air-pump worked by a duplex Worthington engine, to receive exhaust steam from small engines; two independent Worthington steam-pumps; one Andrews's centrifugal pump, driven by two oscillating engines; two direct-acting turret engines; and two direct-acting blower engines, driving two Dimpfel fans.

Boilers.—Two vertical water tubular boilers, Martin's patent, three furnaces in each.

One fixed smoke-pipe, not fit for service on account of shot holes and oxidation; new one required.

One four-bladed iron screw, the condition of which, being under water, was not ascertained.

Condition.—Hull requires general cleaning and painting to preserve it, and all leaks to be made tight.

Spar deck and backing of side armor, with deck beams, to be renewed; some of the deck beams are defective, others can be used again. Joiner work requires general repairs, and all the machinery requires a general overhauling. Leaky pipes to be replaced with new ones; valve faces and seats, and all journals that are cut, to be trued up; some bolts and many minor details—such as nuts, stuffing-box glands, and small pipes about the engines—are defective.

The boilers are defective in their water bottoms and tubes; soft patches to be replaced with hard ones; leaky stay bolts with new, and composition tubes in place of iron. Coal bunkers in good order.

SANGAMON, NOW JASON.

Single turret iron vessel, classed as third-rate, built at Chester, Pennsylvania, in 1863.

Single turret, 11 inches thick, with base ring 5 inches by 15 inches. One 15-inch and one 11-inch gun in the turret. Spar deck covered with armor plating; side-armor plating 5 inches thick.

Anchor-well in bow, and overhang at stern over screw and rudder. Pilot-house 8 inches thick.

Machinery.—Two Ericsson's horizontal cylinder, half-trunk, vibrating lever engines; cylinders 40 inches diameter, stroke of piston 20 inches. Independent fixed cut-off, jet condenser; one double-acting air-pump worked by port main engine; one auxiliary condenser with air-pump worked by a duplex Worthington engine, to receive exhaust steam from small engines; two independent Worthington steam pumps; one Andrews's centrifugal pump driven by two oscillating engines; two direct-acting turret engines, and two direct-acting blower engines, driving two Dimpfel fans.

Boilers.—Two vertical water tubular boilers, Martin's patent, three furnaces in each.

One four-bladed screw, the condition of which, being under water, was not ascertained.

Condition.—Flange of main valve seat, starboard main engine, broken; requires repairs. Duplex Worthington discharge valve seats cut, and require general overhauling. Boilers have a great number of patches in ash-pit and crown-sheets of furnaces. Tubes have about $\frac{3}{16}$ inch scale in them—they are of iron. Upper portions of boilers appear good, but the bracing is of one-inch round iron, and defective. Deck leaks.

Deck beams over engines and boilers are defective. Joiner work in fair condition. All blowers are very rusty inside. Galley requires repairs. Side armor and armor plating of deck have recently been painted.

Smoke-pipe can be repaired by riveting on sheets over shot-holes.

NOTE.—The ports of all the monitors have been enlarged, except Passaic's.

BOSTON.

At this navy yard engines afloat were found on board the Ammonoosuc, now Iowa; Wabash, and Niagara, classed as first-rates. Manitou, now Worcester; Algoma, now Benicia; Alaska, Ticonderoga, Shenandoah, and Agamenticus, now Terror, classed as second-rates. Wyoming, Shawnee, now Eolus; Wassuc, now Stromboli; and Nantasket, classed as third-rates. Cohasset, Palos, Blue Light, and Leyden, classed as fourth-rates. Equipment Launch, Dredging machine, Steam Launch.

AMMONOOSUC, NOW IOWA.

Classed as first-rate, and was built at Boston, Massachusetts, in 1864.

Machinery.—The main engines consist of two horizontal cylinders, each 100 inches in diameter, with 4 feet stroke of piston and double piston rods. These engines act directly on the crank shaft, which transmits the power applied to it through spur gearing to the screw shaft, which revolves $2\frac{5}{6}$ times while the crank shaft is making one revolution. The main valves are provided with a link, but have no independent cut-off.

The engines are provided with two Sewell's surface condensers, independent of each other, and their circulating and air pumps are worked from the main engines.

In addition to the main engines there are four of the Sewell and Cameron patent steam pumps, with connections for fire and general pumping purposes; and two vertical cylinder, direct-acting reversing engines, to facilitate the working of main valves.

Boilers.—Are twelve in number, eight of them being of the Martin type, with vertical water tubes, and four superheating boilers with horizontal iron tubes of the Isherwood type. These boilers are placed six forward and six aft of the main engines, in two independent fire rooms, with two standing smoke-pipes over each fire room.

The four main boilers in the forward room contain seven furnaces each, as do also the forward two of the main boilers in the after fire room; but the two after main boilers in the after fire room have but six furnaces each.

The superheating boilers are placed two in each fire room next the main engines, and contain one furnace each, making a total of 58 furnaces in all, discharging their products of combustion into four independent smoke-pipes.

Condition.—The boilers are very dirty on their interior surfaces, large quantities of mud being collected in them, with sticks, &c., and require a thorough cleaning to preserve them.

Main valve faces and seats are rusty. We found the after circulating pump half filled with water. The main cylinders are slightly cut on their interior surface in the lower half of each cylinder, but are round, and otherwise in good order.

Four standing smoke-pipes, in good condition.

One fixed four-bladed screw, in good order.

Coal bunkers.—Those below the berth-deck are new and in good order; none have yet been erected on the berth-deck.

The machinery and boilers in this vessel are new and fit for service.

She is essentially of the same type as the Florida, and her steam machinery is also essentially the same, and the remarks made in regard to that vessel apply alike to her.

WABASH.

Classed as first-rate, and built at Philadelphia in 1855.

Machinery.—Two horizontal cylinders, back-acting engines, cylinders 72 inches in diameter, single piston rod, harp connections to main cross-heads, independent adjustable cut-off, jet condenser.

Boilers.—There are no boilers or coal bunkers in the vessel.

Condition.—The hull is being repaired. The main cylinders and engine frames, with the condensers and air pumps, are in the vessel, while most of the moving parts have been removed to the shops in the yard for repairs, and many parts are missing which will have to be replaced anew.

All parts require general overhauling to fit them for service, and immediate cleaning to preserve them.

NIAGARA.

Classed as first-rate, and built at Brooklyn in 1855.

Machinery.—Three horizontal cylinders, double piston-rods, direct-acting engines. Main steam cylinders a fraction over 72 inches in diameter, the cylinder of the forward engines being 72 $\frac{3}{4}$ inches, and having apparently been re-bored.

Engines have independent gridiron slide cut-offs; jet condensers.

In addition to the main engines there are four steam pumps in the vessel—two of the Sewell & Cameron patent, one of the Dudgeon type, and one small Worthington pump to feed the auxiliary boiler.

Boilers.—Are four in number, each containing six furnaces, and are of the Martin type, with vertical water tubes of composition. They have no superheating apparatus.

Two telescopic smoke-pipes.

One two-bladed hoisting screw, but the propeller well has been filled up.

Condition.—There is a leak through the stern frames of the hull, near the inboard end of the stern-bearing pipe. The main steam cylinders are cut and worn slightly out of round. All the moving parts of the engines have been disconnected, and are scattered about in different parts of the ship and in the navy yard. Those pieces on board the ship are in very bad condition from rust and want of care.

The crank-pin of the forward engine is untrue. Crank-pin of after engine has several slight longitudinal cracks in it, one of them extending near the whole length of the journal; but we do not think them serious enough to condemn the shaft.

The main journals and most of the journals about the engines, as well as the valve seats and faces, are rusty and require general cleaning.

Many of the iron pipes are so much injured by rust as to be ruined; some of them about the condenser are rusted entirely through.

The main engines and appendants require a general overhauling, and all defective parts to be replaced anew to fit them for service.

We would recommend that the jet condensers now in the vessel be

replaced by surface condensers, with independent circulating pumps, and a superheating apparatus fitted in the uptake of the boilers at the base of the smoke-pipe. This will reduce the tendency of the boilers to foam, and increase the efficiency and economy of the engines.

There is one auxiliary horizontal tubular boiler, with one furnace—no return tubes—and an independent smoke-pipe, connected to furnish steam for the pumping engines. These engines and this boiler also need general overhauling to fit them for service. The steam heaters are badly corroded; the clutch coupling is set fast by rust, and the coupling gear is broken.

Many new pipes are required about the engines and boilers. The boilers also require extensive repairs, caulking leaky seams, patches, &c.; and the boilers need scaling before these repairs are made, and after that to be thoroughly coated with fish oil.

The coal bunkers are defective about the lower sheets, which require to be replaced with new ones. The smoke-pipes, with their hoisting gear, also require repairs and general overhauling.

Condition of the screw not ascertained.

MANITOU, NOW WORCESTER.

Classed as second-rate, and built at Boston, Massachusetts, in 1866.

Has new spar deck being built.

Machinery.—Two Isherwood's back-acting engines, horizontal cylinders, 60 inches diameter by 36 inches stroke of piston; double piston-rods; link motion; no independent cut-off; Sewell's surface condenser; independent air and circulating pumps; steam reversing gear; clutch coupling; ball and collar thrust bearings. Waddell plates have packing rings in them; Bristol's rollers under main valves, two stems on each main valve; composition pistons; two Sewell pumps and two steam syphon pumps.

Boilers.—Four main and two superheating boilers. Main boilers are of the Martin type, with brass tubes; and the two superheating boilers are Isherwood's, with horizontal fire tubes. Seven furnaces in each main boiler, and one furnace in each superheating boiler, making thirty furnaces in all.

Two smoke-pipes, one hoisting section in each.

One four-bladed screw.

Coal bunkers are erected on berth deck, all new and fit for service.

Condition.—This machinery and these boilers are new, but require a thorough cleaning and proper laying up to preserve them. Some of the main brasses and journals, as well as the main cylinders, are slightly cut; but there are no serious defects, and all parts of the machinery are fit for service in their present condition.

Dimensions, &c.—Length, 200 feet; breadth, 41 feet; depth, 13 feet 10 inches. Built of white oak; no live-oak toppings.

The proportions of this vessel are the same as those of the Severn in length and breadth, but in depth seven inches more. The engines, too, are essentially the same, and also the superheating arrangements, and these are of no account. Both smoke-pipes are telescopic.

The remarks made in the case of the Severn are alike applicable to this vessel.

ALGOMA, NOW BENICIA.

Classed as second-rate, and built at Kittery, Maine, in 1868.

Machinery.—Two horizontal back-acting engines, double piston-rods'

Isherwood's design; link motion; no independent cut-off; Sewell's surface condenser; steam reversing gear; three Sewell & Cameron improved vertical steam pumps; four steam syphon pumps.

One two-bladed hoisting screw. Clutch coupling in shaft alley. Line shafting fitted with adjustable bearings and short length, to facilitate work should it be necessary to remove crank shaft or screw.

Boilers.—Four boilers of five furnaces each, Martin type, with superheating horizontal tubes in uptake. One fore-and-aft fire room.

Two smoke-pipes, with one hoisting section in each.

Coal bunkers new and in good order.

Condition.—This is the best machinery of its class we have examined. Every portion of it is thoroughly accessible, and arranged in a most convenient manner.

This vessel has white-oak frames, with live-oak toppings. Her proportion of breadth to length is as 1 to 6.592; and of depth to breadth, counting the former from the under side of lower deck planking, as 1 to 2.904.

She is very sharp forward and aft, and no bow or stern guns can be applied on gun deck. The center of effort of her canvas is twenty-four feet forward of her middle. Her after smoke-pipe comes foul of the mainsail, and, although telescopic, it should have three joints instead of only two. As a vessel of war she is not to be commended.

ALASKA.

Classed as second-rate, and built at Boston, 1868.

Machinery.—Two horizontal back-acting engines; double piston rods, Isherwood's design; link motion; no independent cut-off; Sewell's surface condenser; steam reversing apparatus; three Sewell and Cameron improved vertical steam pumps; two steam syphon pumps.

Backs of main valves have packing rings; should be in steam chest cover. Also valves have Bristol's rollers. Diameter of cylinder 50 inches and stroke of piston 42 inches.

One two-bladed hoisting screw, 16 feet diameter, 27 feet pitch.

Boilers.—Four of five furnaces each, horizontal composition tubes, with vertical composition tubes in uptakes for superheaters. Independent stop valves to take steam direct from the main boilers without superheating.

Berth deck bunkers have been erected. No smoke-pipe yet erected.

Condition.—Machinery and boilers in this vessel are new, and when the work of erecting and connecting, which is now in progress, is finished, all parts will be fit for service and in excellent condition.

She and the Benicia are exactly alike in model and construction, and both are about equally valuable as vessels of war.

TICONDEROGA.

Classed as second-rate, and built at Brooklyn, New York, in 1862.

Hull of vessel is being repaired.

Machinery.—Two horizontal cylinders, back-acting engines; single piston-rods; link motion; no independent cut-off; steam reversing gear; packing rings in back of main valves; cylinders 42 inches diameter, stroke of piston 30 inches. One Sewell's surface condenser; three Woodward's steam pumps; clutch coupling.

One fixed four-bladed screw.

Boilers.—No boilers or smoke-pipe in vessel.

Condition.—Machinery is all being disconnected for a general overhauling. Cylinders to be re-bored, &c., before the machinery can be made fit for service.

Dimensions, &c.—Length on the load line, 236 feet; breadth, moulded, 37 feet 6 inches; breadth, extreme, 38 feet 4 inches; depth to under part of lower deck planking, 10 feet 3 inches.

Spars require altering and replacing, and screw to be changed to one of two blades.

SHENANDOAH.

Classed as second-rate, and built at Philadelphia in 1863.

Machinery.—Two horizontal cylinders; back-acting engines, cylinders 42 inches in diameter, stroke of piston 30 inches, Isherwood's patent; link motion; no independent cut-off; Sewell's surface condenser; one Sewell and Cameron pump, and one small Woodward pump.

One four-bladed screw.

Condition.—Requires general overhauling—re-boring cylinders, re-facing valves and seats, truing up journals, new pipes, &c.—which is being done.

Boilers and coal bunkers have been removed from the vessel. The armor gratings are now being removed.

Length on the load line, 225 feet; breadth, molded, 37 feet 8 inches; breadth, extreme, 38 feet 9 inches; depth to under part of lower deck planking, 9 feet 10 inches.

Spars require altering and replacing, and screw to be changed to one of two blades.

AGAMENTICUS, NOW TERROR.

Two-turret wooden monitor, classed as second-rate, and built at Kittery, Maine, in 1864.

Plank over armor plating on spar deck; twin screws; turret 10 inches thick; pilot-house 8 inches. Turret-shaft steps in a casting on center keelson, supported by four diagonal truss rods.

Machinery.—Two pairs of main engines of Ericsson's vibrating lever type; horizontal cylinders; Bristol's anti-friction valves; no independent cut-offs. Built by Morris, Towne & Co., Philadelphia, in 1863.

Two Sewell's surface condensers; three Sewell steam pumps; one distiller.

Two oscillating engines, and two turret engines, direct-acting under each turret; and, in addition, under after turret, two vertical cylinders; direct-acting blower engines.

Air and circulating pumps are not independent, one barrel only to each, and worked from main engine rock shafts.

Boilers.—Four of the Martin vertical tubular type, four furnaces in each, iron tubes. Have no superheating attachment.

One fixed smoke-pipe, in good order.

Condition.—Engines are being overhauled, as well as the boilers, and are receiving general repairs. All parts require a thorough cleaning.

The screws, viewed from the stern, revolve, starboard to the right and port to the left. They are four-bladed, fixed, of composition, and in good order.

The ship is in dock, and being overhauled throughout.

Side armor is deeply pitted near the water line by the galvanic action of the copper on the ship's bottom.

Boilers were found to be tight, with thirty pounds water pressure.

WYOMING.

Classed as third-rate, and built at Philadelphia in 1858.

Machinery.—Two horizontal, direct-acting engines, diameter of cylinders 50 inches; link motion; independent adjustable cut-offs on back of main valves; Sewell's surface condenser; one Sewell and Cameron steam pump, erected for fire and general purposes.

Boilers.—Two main boilers, seven furnaces each, Martin's type, brass tubes. No superheating apparatus.

One fixed, four-bladed screw.

Coal bunkers require extensive repairs.

One standing smoke-pipe with steam jet in it. This pipe needs some repairs.

Condition.—Engines are very dirty, and valve faces and seats rusty, as well as most of the journals about the engine. Longitudinal crack in after-engine crank-pin, but is not serious.

Main engines require extensive repairs to fit them for service.

Boilers very dirty inside and out.

All machinery and boilers require general overhauling to fit them for service, and immediate cleaning to preserve them.

Spars require altering and replacing, and screw to be changed to one of two blades.

A poop deck, and an increase of length to the topgallant forecastle, would be of advantage.

SHAWNEE.

Single-turret iron-clad monitor, classed as third-rate. Built at Boston, 1864.

Light draught; twin screws. The armament consists of two 11-inch guns.

One turret, of eight 1-inch laminated plates in thickness, with a base ring.

Pilot-house 10 inches thick. Steering gear in pilot-house.

Machinery.—Two inclined, direct-acting engines, 22 inches diameter of cylinder and 30-inch stroke of piston; each engine works an independent screw; link motion; no independent cut-off; Stimers's surface condenser, and Newton's air and circulating pumps, worked by one vertical cylinder, half-trunk and beam engine.

Two Worthington steam pumps; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, and two direct-acting engines for turning the turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential horizontal fire tubes; four furnaces in each boiler, two at each end, with the tube boxes between them; and tubes varying in inside diameter from 3 inches at the bottom to 1½ inch at the top.

Condition.—All the machinery is in working condition, but it requires cleaning and painting.

Hull, deck, and plating are rusty, and require a thorough cleaning.

Boiler tubes badly rusted at inner ends.

The vessel is fit for harbor service.

WASSUC.

Single-turret iron-clad monitor, classed as third-rate. Built at Portland, Maine, in 1865.

Light draught; twin screws. The armament consists of two 11-inch guns.

One turret, of eight 1-inch laminated plates in thickness, with a base ring.

Pilot-house 10 inches thick. Steering gear in pilot-house.

Machinery.—Two inclined, direct-acting engines, 22 inches diameter of cylinder and 30-inch stroke of piston; each engine works an independent screw; link motion; no independent cut-off; Stimers's surface condenser, and Newton's air and circulating pumps, worked by one vertical cylinder, half-trunk and beam engine.

Two Worthington steam pumps; two Andrews's No. 9 centrifugal pumps, each driven by two oscillating engines; two direct-acting blower engines, and two direct-acting engines for turning the turret.

Boilers.—There are two boilers in this vessel, Stimers's patent, with differential horizontal fire tubes; four furnaces in each boiler, two at each end, with the tube boxes between them; and tubes varying in inside diameter from 3 inches at the bottom to $1\frac{1}{2}$ inch at the top.

Condition.—The best light draught we have yet inspected—fit for harbor service.

Hull and machinery require thorough cleaning and painting inside and out, and boilers to be coated with oil.

The boiler tubes much corroded at inboard ends, but still fit for service, though requiring immediate cleaning and oiling to preserve them.

NANTASKET.

Classed as third-rate, and built at Boston, Massachusetts, in 1866.

Dimensions.—Length, 216 feet; breadth, 31 feet; depth, 7 feet 9 inches. Built of white oak—no live-oak toppings.

Machinery.—Two horizontal cylinders, back-acting engines, Isherwood type; single piston rods; link motion; no independent cut-off; Sewell's surface condenser; two Sewell steam pumps, connected for fire and general purposes.

Boilers.—Three in number; port main boiler has seven furnaces, star-board main boiler has six furnaces, and auxiliary boiler has two furnaces.

The main boilers are of the Martin type; auxiliary has horizontal tubes, and has independent superheating connections.

Smoke-pipe has two hoisting sections, as designed by Chief Engineer Dungan, United States Navy.

Screw has four blades—fixed.

Coal bunkers in good order.

Condition.—All machinery and boilers are new and fit for service, except overhanging counterbalance, to be repaired.

Bright work to be painted in place of white lead and tallow.

This machinery is neatly and conveniently arranged, and easily accessible for repairs.

This vessel is narrow, shallow, and sharp, and, on the whole, but a poor specimen of one for war purposes. Being built of white oak, it is inexpedient to attempt alterations with the view of improving her worth for the service.

COHASSET.

Tug, classed as fourth-rate. Built of wood at Providence, Rhode Island, in 1861.

Machinery.—One inverted, vertical cylinder engine; cylinder 26 inches

in diameter by 26-inch stroke of piston. High pressure; independent cut-off. Machinery built by Neafie and Levy, Philadelphia, 1860.

One steam pump, Sewell's, No. 2, connected as fire-engine.

Boilers.—One cylindrical boiler; flues with return tubes, in good order; carries sixty pounds of steam.

One standing smoke-pipe in good order.

Iron coal bunkers in good condition; carry twenty-five tons of coal.

This vessel uses fresh water altogether, and burns four tons of coal for twenty-four hours.

She is fit for service, and in use at the navy yard.

PALOS.

Iron tug, classed as fourth-rate, and built by James Tetlow, Chelsea, Massachusetts, 1866.

Machinery.—One vertical, inverted cylinder, direct-acting engine; double piston rods, and two valve stems; link motion; no independent cut-off; jet condenser. Diameter of cylinder 44 inches; stroke of piston 30 inches.

Air pump worked by beam from main engine crosshead. One Sewell and Cameron steam pump, No. 6, connected with fan; steam reversing gear; has distiller.

Boilers.—Two horizontal, iron tubular boilers of two furnaces each.

Smoke-pipe in good order.

Four-bladed screw in good order.

Iron coal bunkers in good condition.

Condition.—After feed pump barrel is cracked on main engine, but machinery is fit for service. Boilers have cracks on crown sheets, otherwise fit for service. These crown sheets are being repaired.

BLUE LIGHT.

Ordnance tug, classed as fourth-rate. Built at Kittery, Maine, in 1864.

Machinery.—Has one vertical, inverted cylinder engine, 20 inches diameter of cylinder, and 20-inch stroke of piston. Link motion; no independent cut-off. Non-condensing. One small Dudgeon steam pump.

Boiler.—One horizontal, return tubular boiler; two furnaces.

Iron coal bunkers in good condition.

Standing smoke-pipe in good order.

One four-bladed screw.

Condition.—Machinery needs general cleaning and painting to preserve it.

Boiler to be thoroughly cleaned, and coated with fish oil inside and out.

The propeller and rudder have been condemned on account of rust.

Boat not fit for service until repaired.

LEYDEN.

Iron tug, classed as fourth-rate, and built by Tetlow, Chelsea, Massachusetts, 1866.

Machinery.—One vertical, inverted cylinder, direct-acting engine; double piston rods, and two valve stems; link motion; no independent cut-

off; jet condenser. Air pump worked by beam from main engine cross-head.

One Sewell and Cameron steam pump, No. 6, connected with fan; steam reversing gear; has distiller.

Boilers.—None in the vessel.

Iron coal bunkers in good order.

Condition.—Machinery is fit for service; but requires to be overhauled to preserve it from rust.

EQUIPMENT LAUNCH.

Built of wood.

Machinery.—Two vertical, inverted cylinders, direct-acting engines, one on each side of the boiler, driving twin screws, four blades each.

Boiler.—One horizontal tubular boiler, with one furnace.

Condition.—Engines have considerable lost motion in valve gear, but otherwise all parts are in good order, and fit for service.

One blade broken off port screw.

DREDGING MACHINE.

Machinery.—Two horizontal cylinder, direct-acting engines; no link motion, or cut off.

High pressure. One small steam pump.

Condition.—Requires no repairs.

STEAM LAUNCH, NO. 2.

Machinery.—Has four vertical, inverted cylinders, direct-acting engines, two on each side of the boiler, driving independent screws. These engines are non-condensing.

Boiler.—One cylindrical boiler, with horizontal fire tubes; no return. Two four-bladed screws.

Condition.—The engines have considerable lost motion about the moving parts, and some of the boiler tubes are weak at the ends, but the launch is in constant use, and fit for service.

The smoke-pipe requires some repairs, as it is broken.

PORTSMOUTH.

At this navy yard engines afloat were found on board of the Minnetonka, now California, classed first-rate; Pawnee, classed second-rate; Penobscot, Portfire, Speedwell, and Emerald, classed as fourth-rate; dry dock.

MINNETONKA, NOW CALIFORNIA.

Classed as a first-rate, and built at Portsmouth, New Hampshire, in

The machinery itself of this vessel is, in all respects, a duplicate of that of the Mosholu, or Severn, class; and, therefore, the superheating arrangements are equally worthless.

The boilers, however, although the same in number, and intended to afford steam to an equal amount, have horizontal fire-tubes, those of the main being of composition, and those of the superheating being of iron.

The smoke-pipes, two in number, are telescopic, each having one hoisting section.

She has coal bunkers on the berth deck, as well as in the hold; and, in the course of a trial of her steam appointments at the wharf, 45 tons of coal were consumed in 24 hours, the screw making 47 revolutions.

Her screw is fixed, and four-bladed, with a clutch coupling on the screw shaft.

Its mean pitch is 29 feet, and its diameter is 17 feet 6 inches.

All the steam appliances of this vessel are new, and, generally, in excellent condition. They are ready for service.

The main cylinders, and some of the main crank-shaft journals, are slightly cut, but not so as to be of consequence.

The main pistons are of composition.

Some of the main brasses would be benefited by new oil grooves; and the barrels of the hoisting gear for the smoke-pipes should be grooved, in order to prevent the hoisting rope from riding.

This vessel is built of white oak, and she has a spar deck.

Her length on the load line is 313 feet 6 inches; and her extreme breadth is 46 feet. The proportion of breadth to length, therefore, is as 1 is to 6.815. Her depth, from the under side of berth deck planking, is 13 feet 10 inches; and the proportion of depth to breadth is as 1 is to 3.326.

Her mean draught to the load line is 17 feet 1½ inches, and the proportion of this to breadth is as 1 is to 2.683.

With the additional keel contemplated, her mean draught to the load line will be 18 feet 8½ inches. The present keel, clear of rabbet, is 16 inches aft, and 6 inches forward.

Her displacement to the load draught is 3,925 tons; area of immersed part of greatest cross section 646 square feet; and area of grate surface 585 square feet. The proportion between these areas is as 1 is to 0.9056, or in an opposite way as to excess from what it is in the cases of the Wampanoag, Madawaska, Mosholu, &c.

She is now arranged to carry 693 tons of coal, and to spread 23,820 square feet of canvas, taking all her sails into the account.

Her armament consists of three rifle guns on the spar deck, pivot mounted, one a 60-pounder, and the remaining two 30-pounders; and eighteen broadside guns on the gun deck, two of which are 100 pounders, and the rest 9-inch.

She is 21½ feet shorter on the load line than the Wampanoag, and yet 10 inches broader; and she is 23½ feet longer on that line than the Mosholu, and 5 feet broader.

Her displacement is 445 tons less than that of the Wampanoag, and 1,005 tons more than that of the Mosholu; and, as stated above, she and this latter vessel have steam appliances of the same power and weight, unless there may be an unimportant difference in the weight of the main boilers, owing to their difference in the arrangement of tubes.

She is better, for a vessel of war, in the proportion of breadth to length, than either of those vessels, and doubtless possesses, relatively, more inherent stability; but still she is sadly defective in depth, and in extravagant sharpness of ends.

She is arranged to accommodate three months' provisions, and 11,518 gallons of water.

On the whole, she is, at best, but a poor specimen of an efficient vessel of war, and really not worthy of material alterations, except that it would be well to alter her screw to one of two blades.

PAWNEE.

Classed as second rate.

Machinery.—Two horizontal cylinders, direct-acting engines; diameter

of cylinder 65 inches, stroke of piston 3 feet; Pierson's surface condenser; link motion, and independent cut-off; one syphon steam pump; one Sewell's steam pump; and one direct-acting steam pump.

Boilers.—Two horizontal tubular boilers, one of seven furnaces, and one of six; and one auxiliary boiler of one furnace—all composition tubes.

Condition.—Some of the composition tubes are leaking. Auxiliary boiler wants repairs—soft patches to be replaced with new ones. Gearing driving-wheel sections are loose; but on main shaft, the intermediate shaft pinions are of composition, and are tight. One section has been removed. Gearing requires repairs.

The forward pinion of the screw-shaft of the starboard engine is loose; and one of these pinions has been cut. They are of cast iron.

Valve gear requires general overhauling; the straps are much worn, and should be removed.

Distiller is in good order.

One smoke-pipe, telescopic, with one hoisting section. Some riveting is required.

Coal bunkers in good order, but require doors from fire-room.

Two four-bladed, fixed screws, in good condition.

Main engine bilge pumps are out of order.

Boilers require thorough cleaning, and all leaks to be made tight.

Ratio of gearing is $2\frac{1}{2}$ to 1. This gearing requires a thorough overhauling; and an entire new set of cogs; defective sections of pinions to be replaced with new ones, and all shafting to be lined up.

The machinery will not be fit for service until the required repairs are made.

The main engines in this vessel are not independent, both being connected to the same crank shaft, and, consequently, the screws cannot be worked independently. This takes away one of the important advantages of the twin screw system.

The spars of this vessel are entirely inadequate.

She is built of live oak.

PENOBSCOT.

Classed as fourth rate.

Machinery.—Two horizontal, back-acting engines; single piston rod; link motion; no independent cut-off. Built at Allen Works, New York, 1861. Cylinders, 30 inches diameter, stroke of piston 18 inches. One Sewell's surface condenser; one Woodward steam pump; one syphon steam pump, and one distiller.

Boilers.—Two boilers, two furnaces each, of the Martin type, with vertical water tubes of composition; no superheating attachment.

One four-bladed, fixed screw; coupling gear on screw shaft.

Coal bunkers very thin; require repairs.

One fixed smoke-pipe, also thin, requiring new sheets.

Distilling apparatus is defective.

Condition.—Machinery generally requires a thorough overhauling to fit it for service.

The crank-shaft journals are very rough, and require trueing up.

All the valve gear is much worn, and requires repairs. Forward stop valve is broken.

Crank-shaft brasses worn out. Piston rod of after engine is bent.

The boilers are weak, and many patches about the furnaces. In view of the fact that the extensive repairs they require would probably cost

more than new boilers, the board recommends that new ones be substituted.

This machinery is not fit for service, nor can it be so until repaired. Screw should be altered to one of two blades.

PORTFIRE.

Wooden tug, classed as fourth-rate.

Machinery.—One vertical cylinder 20 inches diameter, 20 inches stroke of piston. High pressure; link motion; no cut-off; one small Knowles's pump for pumping boiler and bilge.

Boilers.—One flue and return tubular boiler, iron tubes; two furnaces.

One four-bladed propeller, composition.

One standing smoke-pipe.

Condition.—All bearings in good condition, machinery being trued and overhauled.

Boiler has lately been repaired; the tubes are slightly pitted; steam space is too small; boiler foams very badly.

This machinery will not be fit for service until the repairs now in progress are completed.

SPEEDWELL.

Iron tug, classed as fourth-rate, and built by James Tetlow, Chelsea, Massachusetts, 1866.

Machinery.—One reversed vertical cylinder, 44 inches diameter by 30 inches stroke of piston; link motion; double piston rods, and double valve stems; no cut-off; jet condenser; one Sewell and Cameron steam pump, connected with boiler, bilge and hose; one fan blower.

Boilers.—Two with return flues and horizontal tubes, of two furnaces each.

Condition.—The fan blower is useless. All parts of the machinery are in good condition, and fit for service.

Blower passages very much worn. Braces in good condition. Tubes badly fitted, and should be renewed by brass ones.

Iron coal bunkers in good condition. One four-bladed, iron propeller, 10 feet diameter, 20 feet pitch, in good condition.

One standing smoke-pipe in good order.

EMERALD.

Classed as fourth-rate.

Machinery.—One upright cylinder, 14 inches by 14 inches, built by Neafie, Levy & Co., Philadelphia, 1864.

Link motion; no independent cut-off. High pressure.

Boiler.—One upright boiler of one furnace, and with vertical fire tubes. One four-bladed composition propeller, true screw, 8 feet 6 inches pitch, 5 feet 4 inches diameter.

One standing smoke-pipe in good order.

Condition.—Lower end of boiler tubes somewhat defective, some of them leak.

Boat is in constant service as ferry-boat between town and navy yard.

DRY DOCK.

No independent sections.

Machinery.—Two horizontal cylinders, direct-acting, high pressure

engines; no independent cut-off; no link motion. Cylinder 11 inches diameter by 4 feet stroke of piston.

Boilers.—Two cylindrical, horizontal tubular boilers, one furnace each.

Condition.—Machinery is fit for service.

Boilers are in good order.

Dock is fit for service, but requires cleaning and painting to preserve it.

WASHINGTON.

At this navy yard engines afloat were found on board of the Shamokin, Montauk, Mahopac, now Castor, Casco, now Hero, Chimo, now Orion, classed as third-rates; Nipsic, Nina, Triana, Primrose, Rescue, Phlox, classed as fourth-rates.

SHAMOKIN.

Double-ender, classed as third-rate. Iron hull. Side wheels.

Machinery.—One inclined side wheel, direct-acting engine. Two Sewell's steam pumps. One Sewell's surface condenser.

Boilers.—Two horizontal tubular boilers, seven furnaces each. Two Isherwood's superheating boilers, one furnace.

Condition.—Joiner work and decks generally require extensive repairs. Machinery should be disconnected to preserve it, and given a general overhauling.

Boilers should be condemned, as they require more repairs than they are worth.

One standing smoke-pipe in fair condition.

Wheels in fair condition.

Machinery and boilers not fit for service in present condition.

MONTAUK.

Single-turret monitor, classed as third-rate.

Machinery.—Two Ericsson's half trunk, vibrating lever engines, horizontal cylinders, 40 inches diameter. Jet condenser, no independent cut-off; air pumps worked by main engine rock-shafts.

Two Worthington steam pumps. One duplex Worthington engine with condenser for exhaust of auxiliary engines. One Andrews's centrifugal pump.

Boilers.—Two Martin boilers, of three furnaces in each, and with tubes of iron. Boiler water bottoms are filled with cement. Many tubes leaking; should be replaced by new ones.

Condition.—Machinery and boilers require extensive repairs to fit them for service; could be made ready for temporary service in thirty days.

MAHOPAC.

Single-turret monitor, classed as third-rate. Turret 10 inches thick; pilot house 8 inches. Two 15-inch guns. Base ring on turret.

Machinery.—Ericsson's horizontal cylinder, vibrating lever engine; independent fixed cut-off. Main cylinders 40 inches diameter, stroke of piston 24 inches.

One Worthington steam-pump; one duplex Worthington pumping engine; Newton's air and circulating pumps, driven by one vertical cylinder beam engine. Stimers's surface condenser.

Boilers.—Two main boilers of six furnaces each, with horizontal iron

tubes. Two auxiliary boilers, one furnace each, with horizontal differential iron tubes. All Stimers's patent.

Condition.—This machinery and these boilers have lately been repaired, tested with steam, and are reported ready for service.

CASCO, NOW HERO.

Light draught iron-clad vessel, classed as third-rate.

One gun mounted on platform on spar deck. Sides of hull not raised. Bomb-proof pilot-house, cover 10 inches thick; two 1-inch iron plates on top, 6 inches filling of wood, and two 1-inch plates underneath.

Machinery.—Stimers's inclined engines; no independent cut-off; air pumps worked from main engines; jet condenser.

Root's rotary engine connected with torpedo gear. Two direct-acting blower engines.

Boilers.—Two Stimers's boilers of four furnaces each, with differential horizontal tubes arranged between furnaces. One standing smoke-pipe in good order.

Condition.—Machinery disconnected, white-leaded, and laid up in good order. Boilers in good order. Machinery and boilers can be made ready for service in a few days by simply connecting, packing and adjusting. Vessel needs cleaning and painting.

CHIMO, NOW PISCATAQUA.

Light draught iron-clad, twin screws, classed as third-rate.

One gun, mounted on platform on spar deck. Sides of hull not raised. Bomb-proof pilot-house, cover 10 inches thick, two 1-inch iron plates on top, 6 inches filling of wood, and two 1-inch plates underneath.

Machinery.—Stimers's inclined engines; no independent cut-off; air pumps worked from main engines; jet condenser. Two Sewell steam pumps; no pump in cabin. Root's rotary engine, connected with torpedo gear. Two direct-acting blower engines.

Boilers.—Two Stimers's boilers of four furnaces each, with differential horizontal tubes arranged between furnaces.

One standing smoke-pipe, in good condition.

Condition.—Machinery disconnected, white-leaded, and laid up in good order. Boilers in good order.

Machinery and boilers can be made ready for service in a few days, by simply connecting, packing, and adjusting.

Vessel needs cleaning and painting.

NIPSIC.

Classed as fourth-rate, and built at Kittery, Maine, in 1863.

Machinery.—Two single piston-rod, horizontal cylinder, back-acting engines, Isherwood's design. Built by Woodruff and Beach, Hartford, Connecticut, 1863. Cylinders, 30 inches diameter; stroke of piston, 21 inches.

Link motion; no independent cut-off; clutch coupling. Sewell's surface condenser; gives 27 inches vacuum. One Sewell's steam pump. An old distilling apparatus, which should be replaced by a new one.

Ship carries but twelve hundred gallons of water; ought to carry thirty gallons per man.

Boilers.—Two Martin boilers, with composition tubes, and vertical

superheating tubes in the uptakes. There are six furnaces in each of the main boilers.

One standing smoke-pipe, nearly new, and in good order.

Screw was broken off the screw-shaft while the vessel was on her passage home; it should be replaced by one of two blades.

Condition.—Machinery and boilers require general repairs to fit them for service; and, besides a new screw and a new end to screw-shaft, the valve seats and faces should be trued up, and the engines lined up anew.

Some portions of the decks require canlking, and all the outside planking above water-line.

Seams are open between planks under starboard quarter.

Steering gear thumps from lost motion.

Ship rolls deeply; does not pitch much; tacks well; does not wear quickly.

NINA.

Iron tug, classed as fourth-rate, and built at Chester, Pennsylvania, in 1865. Now being fitted out as a torpedo boat. Built by Reamy, Son, & Archbold, Chester, Pennsylvania, 1864.

Machinery.—One vertical inverted cylinder engine, 44 inches diameter of cylinders; 30-inch stroke of piston; link motion; no independent cut-off; steam-reversing apparatus; jet condenser. One Sewell's steam pump, connected, for fire and general pumping purposes.

Boilers.—No boilers or smoke-pipe on board, being now at the shop for repairs.

One four-bladed iron screw, and iron coal bunkers, all in good order.

Condition.—The machinery itself is in good condition, and fit for service.

TRIANA.

Iron tug, classed as fourth-rate.

Machinery.—One vertical inverted cylinder engine, double piston rods. Diameter of cylinder 44 inches, stroke of piston 30 inches; link motion; no independent cut-off. One Sewell steam pump, connected to drive a fan, and for general pumping purposes.

Boilers.—Two boilers of two furnaces each, with flues and return horizontal tubes of iron.

Steam chimney has lately been raised and boiler repaired.

One standing smoke-pipe in good order.

Iron coal-bunkers in good condition.

Condition.—Machinery, boilers, and screw fit for service, having lately been repaired.

PRIMROSE.

Wooden tug, classed as fourth-rate. Purchased at Washington in 1863.

Machinery.—One vertical inverted cylinder engine; link motion; no independent cut-off.

Main cylinder 20 inches diameter, 20-inch stroke of piston. High pressure.

One Woodward steam pump in engine room, and two Woodward pumps for fire and general purposes.

Boiler.—One of cylindrical form, with two furnaces, and with flues and return tubes.

One standing smoke-pipe in good order.

Wood coal-bunkers; new ones of iron should be substituted.

Condition.—Boiler and engine in good condition.

Woodward pumps in good order.

Engine requires only connecting, packing, and adjusting, to fit it for service.

Hull worthless; stem crushed; copper off. Vessel has been condemned.

RESCUE.

Iron hull, classed as fourth-rate. Fire tug, and built at Wilmington, Delaware, 1861. Engine built by Harland and Hollingsworth, Wilmington, Delaware, 1861.

Machinery.—One inverted vertical cylinder engine, diameter of cylinder 26 inches; stroke of piston 24 inches; link motion; independent cut-off; jet condenser. One Worthington steam pump in engine-room, and one Worthington steam pump forward for fire purposes.

Boiler.—One cylindrical boiler of two furnaces, with flues and return tubes.

One standing smoke-pipe in good order.

One four-bladed iron screw in good order.

Iron coal bunkers in good order.

Condition.—The machinery is fit for service.

The deck leaks forward, and over engine and cabin. Wheel ropes bad, and steering gear requires overhauling.

This vessel is in service at the yard for fire and general pumping purposes.

PHLOX.

Side wheel; classed as fourth-rate. Purchased at Boston, Massachusetts, 1864.

Machinery.—Beam engine, 28 inches diameter by 7 feet 6 inches stroke of piston; driving side-wheels. Jet condenser. Lifting air pump.

Boiler.—No boiler in vessel, having been removed for repairs.

Condition.—Not fit for service until repairs are completed.

In conclusion, and in view of the latitude given to the board in its instructions, it may not be thought irrelevant to the matter of this report for the board to mention that, of all the vessels visited, not one, in its judgment, considering the combination of qualities which alone can constitute efficacy in a vessel of war, and this more particularly in connection with the amount of displacement occupied, and what would therefore, and of right should, be expected—no, not a single one, startling as it may appear—effectually fit, in these times, to cruise at large in war with an impunity commensurate with her class, or to cope with the cruisers now possessed by the more formidable naval powers of Europe.

Defectiveness of model, affording but little inherent stability in comparison with the extent of broadside surface, little relative buoyancy in a sea-way, and lessening durability by compromising longitudinal strength; hampering the use of broadside guns, and occasioning a rolling motion to expend shot with much more of noise than effect; forbidding the use of bow guns on gun decks entirely, and of stern ones also, except in a very restrained degree; accommodating but comparatively a minimum quantity of provisions and stores at most; impairing sailing qualities by shallowness of hold and want of keel, the former causing also an exposure of boilers in battle, which, of all things, ought to be avoided; and accommodating officers and crew at best but badly, is

with us a stereotyped fault, and it is one of intense magnitude at least in regard to effective ships. And then again, this, bad as it is, is glaringly aggravated by ill arrangements otherwise to secure even tolerable, much less the best, results from both steam and sails, in view of their combined use, and the circumstances attending it.

Of all the vessels visited by the board, the Wabash, Minnesota, Colorado, and Lancaster, are on the whole better than the rest for the purpose mentioned; but, besides being deficient in steam power—more particularly the former three—and also in other respects, they are now quite old in design, if not in age, and compare unfavorably with such vessels, for instance, as the Orlando, Mersey, Galatea, Ariadne, Diadem, Doris, &c., of England, and, of course, are not to be mentioned in comparison with the plated cruisers held in Europe. In short, they have had their day, and have now become much surpassed by others.

Since these ships were constructed, many millions have been applied by us to the building of other wooden vessels; but, alas! a chronic failure to produce even their equals in sufficiency, except in the single case of the Franklin, has been the invariable result; and really, to speak frankly, it is mortifying and humiliating to witness the amount of scarcely more than naval trash that has been turned out, and of which our navy, as to vessels, is now in a large degree composed, whatever may have been put forth to the contrary notwithstanding.

Our country abounds with admirable mechanics, and with the most choice materials for constructing vessels of war of all kinds; and if we do not produce at least as good results as are to be found elsewhere, the fault is not to be ascribed to any want in these particulars. It must obviously lie in a defective system of administration.

Since the days of the Board of Navy Commissioners, when our navy, as to ships, was, relatively, much better off than it is at present, there has been, until within the last few months, a settled indisposition, apparent to all, to invoke the experience of the navy, either as to ships or any other matters of prominent naval importance. It has been held virtually at bay, or as though nothing of consequence could be derived from it; and to this course of procedure may be ascribed, to a very large degree, the existing state in which our navy is found.

That board was established early in 1815, because of a development particularly manifested during the war with England, which commenced in 1812; and this was that our navy could not be administered properly without the organized aid of professional ability and experience.

The law enacted in regard to it provided that it should be attached to the office of the Secretary of the Navy, and, under his superintendence, discharge all the ministerial duties of that office in relation to the procurement of naval stores and materials, and the construction, armament, equipment, and employment of vessels of war, as well as all other matters connected with the naval establishment of the United States. These very duties, it may be observed, omitting the qualification implied by the word ministerial, are precisely those prescribed by the organic law of 1798 establishing the Navy Department, to be executed by the Secretary himself, under the orders of the President; and, in fact, they are all it does enumerate; and the iterated dictum of our courts, long ago given, is that "the official duties of the heads of executive departments are not merely ministerial; they involve the exercise of judgment and discretion." The law of 1815, therefore, it would seem, required superintendence rather than execution, on the part of the Secretary, in regard to the discharge of these duties, and left to him, in effect, more of his time to be devoted

to cabinet matters, the patronage of his department, and to the reflection necessary to the best exercise of his judgment and discretion.

In this state of things it was that the board went to work, and then our navy was but of small proportions. The board was composed of three officers of the highest rank, selected for their fitness.

In comparatively a little while it brought about a great change for the better, and won the respect and confidence of all as a body effecting, and well calculated to effect, much good generally to the navy. The officers of the present day, although some of them may not know or feel it, owe much to its exertions. It existed upwards of twenty-seven years, and during the time the navy was largely amplified, and therefore the labors of the board increased correspondingly. As early as April, 1816, or scarcely more than a year after the board was first organized, the building of nine ships of the line and twelve frigates was authorized by Congress. In a word, in the course of its career, and towards its conclusion, it was so over-crowded with the management of details that it failed to bring about the best results in regard to a number of them, became unpopular, and the present bureau system was substituted in its stead. A more disastrous step, concerning our naval affairs, could not well have occurred, as the sequel has but too abundantly proved. Had the board been continued with the addition of the bureaus, tributary to its authority, all difficulties would have been removed, and the arrangement, in effect, most approved by the other navies of the world would have taken place; and until this is done in some form or other, as it must of necessity be sooner or later, and the earlier the better, no other remedy will be found adequate to the end of exorcising our pernicious naval sores.

The present lamentable condition of our navy as to ships, to say nothing of other matters intolerably flagrant, and not to be endured if our navy is to be well-ordered, is really a consequence, in a very large degree, of our present bureau system.

This remark is made with no idea whatever of impugning individuals who are, or who ever have been connected with the bureaus in any form or way; but to apply solely and exclusively to the system itself. They, of course, are, or were, but its adjuncts, voluntary or otherwise, as the case may be, or may have been, and therefore are not to be thought for a moment in the least responsible for either its origin, continuance, or value.

By this system, both in effect and practically, there is an obvious want of unity of action to bring about even tolerable results as to common ends; and, indeed, this is inherent to the system itself. Each head of a bureau very naturally attends but particularly to his own specialty, and he does so independently of the rest, or with no more of concert than may suit his own conception or inclination; and there is no organized professional supervision exercised as to his determinations; or, so to speak, each string of the instrument is attuned to a distinct pitch of its own, but still there is no congenious base to either, much less common to all; and base is the mother of harmony.

Under these circumstances, it is not difficult to perceive that whether, for instance, the guns or engines are to fit the ship suitably, or the ship herself only one or the other, or perhaps neither, properly, are points not unlikely to hover enigmatically until the mischief becomes past remedy. And in another way, and that concerning the *personnel* of the service, if it be permitted to allude to the subject, the bureau system has led to very unhappy consequences. Each head of a bureau, representing a particular class of officers, very naturally prefers that body to

any other; and very naturally, too, feels inclined, if not, as it were, obliged to avail of his position, and secure for it whatever he can in the way of what he himself thinks it ought to have. But it is simply impossible for several of them to be doing the same thing, and probably at the same time, each shaping his demands from a distinct stand-point and for a different class, without giving rise to conflict and discord. At any rate the effect has been to bring about a broad breach of harmony among the officers of the service, or a state of feeling distressing to witness, and very injurious to order and discipline.

Besides the system in view, in fact, has occasioned other serious misfortunes to the service; although, to be sure, it undoubtedly has been the means of some benefits; but the evils resulting from it are greatly in the ascendant.

Bureaus are not only convenient but necessary to good management, supposing them to be used as amenable to an organized professional authority of superior consequence; or, as they are used invariably in other navies that are well constituted. In this view of the case, we have not a sufficient number of them. In the French navy, remarkable for the excellence of its organization, administration, accountability, and economy, there are five "*directions*," and twenty-one bureaus, exclusive of one "*direction*" and four bureaus to attend to colonial concerns, headed by a council of admiralty, the president of which is the minister of marine; and in the English navy there are ten "*departments*," as they are termed—bureaus, in fact, headed by a board of commissioners for executing the office of lord high admiral of the United Kingdom of Great Britain and Ireland, &c.

Our system has now existed for just about the same period of time that the board of navy commissioners lasted, and ample opportunity has been afforded to judge calmly and impartially of its operation.

Very respectfully, your obedient servants,

L. M. GOLDSBOROUGH,
Rear-Admiral United States Navy
CHAS. S. BOGGS,
Commodore United States Navy.
ISAAC NEWTON.

Hon. GEORGE M. ROBESON,
Secretary of the Navy, Washington, D. C.

We respectfully concur in the foregoing report, with the following named exceptions:

Page 143: Last paragraph, and all calculations based on same.

Page 144, 5th line: Instead of "in cases of this sort," read "usually." After "all told," line 11 from bottom of page, add: "but from our personal measurements we find that she has stowage capacity for bread, and provisions of all kinds, for 375 men for at least six (6) months."

Page 148: Second paragraph. Sixth paragraph, 2d line: For "any," read "little;" and after "moment," add, "compared with ordinary cruisers." Also 5th line, after "coal," for remainder of sentence, substitute "her speed under sail alone would be comparatively small;" and sentence, "Had she been given," &c.

Page 149: Second paragraph. Fifth paragraph, 2d line: After word "comfortable," add, "but a light spar deck would obviate this difficulty," and omit to end of eighth paragraph.

Page 150, third paragraph, 2d line: Instead of "nothing," read "little." 3d line: For "no," read "little." 4th line: "If, indeed, they do afford any benefit whatever." 7th line: "Is about all." 8th line: "Two of." Fourth paragraph, 3d line: instead of "six," read "twelve." Paragraph commencing "On removing." Paragraph commencing "The shifting." Eighth paragraph: From "supported," to "by a system." Ninth paragraph: "Two remaining."

Page 151, second paragraph, 2d line: from "by it," to the word "the," in line 3, third paragraph; and in line 5, after "war," add, "is evident."

Page 152: After word "navy," in line 2, to end of second paragraph. Line 13: Instead of word "two," read "vertical and horizontal tubular boilers." And third paragraph: From word "down," in line 11, to end of following paragraph.

Page 153, first paragraph, line 4: Instead of "sheer neglect," read "want of proper care." Line 6: Instead of "no pains had been taken," read "nothing had been done." Line 10: Instead of "nothing," read "little."

Page 154: Paragraph commencing "As to," to word "in," 5th line. Eighth paragraph, 3d line: From "using," to "spars," in 4th line. And from "twin ships," in last line, to "or," in first line on page 155; remainder of sentence from word "kind," 3d line from top of page 155.

Page 156: Fifth paragraph, and also paragraph commencing with "The real source," and the two following.

Page 159: After word "kind," in line 6 from bottom, to "besides," line 18, page 160.

Page 160: From word "it," in line 17 from bottom, to end of article on page 161.

Page 193, line 7 from bottom: After "arrangements," remainder of sentence.

Page 194: After word "two," line 22.

Page 199, line 6 from bottom: Instead of "worthless," read "insufficient."

Page 200: Paragraph "On the whole," &c.

Page 206: Commencing with the words, "In conclusion," and all of the following pages to end of report on page 209.

Very respectfully, your obedient servants,

E. D. ROBIE,
Chief Engineer United States Navy.
JNO. W. MOORE,
Chief Engineer.

Hon. GEORGE M. ROBESON,
Secretary of the Navy, Washington, D. C.

REPORT OF NAVAL BOARD ON YARDS AND DOCKS.

NAVAL BOARD ON YARDS AND DOCKS,
Washington, D. C., October 6, 1869.

SIR: In compliance with the instructions of the Navy Department of March 11, 1869, we have examined the navy yards at Portsmouth, Boston, New York, Philadelphia, Washington, and Norfolk, and report as follows :

NAVY YARD, PORTSMOUTH, NEW HAMPSHIRE.

The improvements proposed are mostly for Navy Yard Island; will answer well for naval purposes when the navy yard is extended over Seavey's Island, and meanwhile are insufficient.

This navy yard is much exposed to attack by iron-clads. Seavey's Island is high and rocky, lies between it and the sea, and may be useful to its defense.

The extension of the navy yard over Seavey's Island had better be deferred until the defense of the harbor is properly provided for.

"In consequence of the very exposed position of the navy yard, it was thought by the department necessary to mount a few guns on Seavey's Island for the better protection of the harbor." (Extract from the annual report of Rear-Admiral Joseph Smith, chief of the Bureau of Yards and Docks, October 17, 1863.)

NAVY YARD, BOSTON, MASSACHUSETTS.

The rope-walk occupies space and buildings much needed for other purposes in the equipment and construction departments of this yard. The efficiency of this navy yard ought not to be impaired by a manufactory for the general service.

The rope made at this rope-walk is for the naval service generally.

A good modern rope-walk might be advantageously placed on part of the naval hospital grounds at Chelsea.

This is an old-fashioned and insufficient rope-walk. It has but ninety spindles; from three hundred and fifty to four hundred are thought necessary. In 1863, working day and night, it made one thousand four hundred tons of cordage for the navy, but the government is thought to have bought during the late war twice as much as it made. Steam was mostly used on the blockade.

A fire-proof spinning factory is required, with additional spinning, preparatory, and laying-up machines, engines, shafting, boilers, and apparatuses; also machinery, shafting, &c., for making wire rope.

Sufficient improved machinery for cutting and skirring hides should be provided to admit of making hide rope in autumn, when the fresh hides are strong. In summer they are subject to injury from rot, and in winter from frost. It would be better to build and fit up a new rope-walk of large capacity, and with the modern improvements, than to enlarge this one.

If this manufactory is to be kept here its second story should be extended the full length of the building, and improved ventilation given to the hackling department, which is now hurtful to the lungs of the workmen.

It is necessary to extend the navy yard at Boston. The naval hospital grounds on the opposite side of the Mystic River contain about eighty-six acres, and that part of it along the water front, where not too high

ground, may be improved to the channel, made very useful for naval purposes, and should be so applied.

Probably the best addition which this important navy yard can receive will be from the purchase of the flats in the Mystic River lying between the navy yard and the naval hospital grounds, and with a channel on each side, which can be made deep enough. The area of these flats is about one hundred and twenty acres. The site is owned by a company called the Mystic River Railroad Corporation. The manager of the company declined to state the value of this right. It is only improved by a small extent of quay wall.

Wet basins, &c., are needed for securing and fitting out ships. When they inconveniently occupy the limited water front of the navy yard they are exposed to injury from storms, large rise and fall of tides, and from ice.

These flats would afford a convenient site for a system of wet basins, wharves, store-houses, more building slips, and a depot for coal, where a supply may be kept which in war time would be a provision against the loss of colliers on the coast, and where, with proper facilities, several men-of-war may quickly coal, and several colliers discharge at the same time.

With these flats, and the water front of the naval hospital grounds, both properly improved and occupied for naval purposes, the navy yard establishment at Boston may be made efficient.

In this connection it would be desirable to purchase the Chelsea bridge, and subject the use of it, if it cannot be removed above the proposed improvements, to naval necessity there.

Launch of the line-of-battle ship Virginia, which has been on the stocks and has occupied one of the three ship-houses here since 1820, is of sound live oak frame, and wanted as a receiving ship at Boston.

NAVY YARD, NEW YORK.

This city, the richest and largest in our country, is accessible from sea by Sandy Hook and Hell Gate. New York Harbor is subject to blockade, and the city to attack, by iron-clads. The Western powers of Europe have large and efficient naval establishments, many and powerful armed and armored vessels, and their jealousy of us is, and will be, greater than it was before the integrity of our country was tried and confirmed.

Our navy yards are small and poorly provided; we have but few efficient vessels. The defense of our seaboard cities against blockade depends on naval resources, and their defense now more on floating than on fixed defenses. Our navy yards, aided by the mechanical and commercial resources of our great cities, must supply the floating defense.

We require men-of-war with fine steam and sailing capacity, and carrying large batteries of heavy guns; armored vessels with ordnance of the largest caliber, and armored vessels of strength and speed to ram, and others to apply torpedoes with certain effect; of the last two classes there should be many more than any assailing power could destroy or resist.

The navy, in the future, is to be the chief and cheap defense of the cities, coasts, and commerce of this great and growing continental country.

Common sense and patriotism require that our small navy yards be immediately improved to the full extent of their capacity, and that ample floating defense for our cities, navy yards, harbors, and coasts shall be provided with all practicable dispatch.

The improvements which we have recommended for this most important, but sadly neglected, navy yard, may and should be made in from four to eight years.

Brooklyn and Charlestown experience inconvenience in loss of revenue, and from the occupation of water front by the navy yards.

When New York and Boston embrace these, and the other adjoining cities and towns, the space occupied by the navy yards will be small in comparison with the size of these great cities; and then the navy yards will only be regarded in the beneficial light of supplying means of protecting the great cities and to keep their ports open.

It is necessary to acquire a convenient site where wet basins may be made for the safety and convenient care of vessels in ordinary.

Where it is practicable to enlarge the chief navy yards by acquiring adjoining or convenient territory, it should be done without delay. The naval hospital grounds, containing thirty-three acres, will make a very necessary and convenient addition to this navy yard.

Naval hospitals may, with the facility of navy yard, city and country railroads, be advantageously located in pleasant, airy, cheerful, and healthy grounds in the country. The sick from the public vessels may be sent by steam-tugs to the navy yards, and thence by comfortable cars to the hospitals.

NAVY YARD, PHILADELPHIA, PENNSYLVANIA.

The removal of the navy yard from the city to League Island makes it unnecessary to propose any thing in regard to the old navy yard.

In respect to League Island, it is important that the quay wall to be built around it should be so extended as to inclose several hundred acres of land outside of the present temporary walls.

The excavation for wet basin in the back channel, and for the necessary improvements on the island, will supply much of the material required to fill up this extension.

The rest can be conveniently got, and in part by dredging where it will improve the navigation.

The location of this island, its extent, level surface, soil easily worked and sufficiently firm, isolation, (an excellent feature in a navy yard, preventing depredation, hazard of fire, and promoting safe and easy police,) its convenient access to the resources of Philadelphia, and to the coal and iron of Pennsylvania, afford the site for making this one of the greatest navy yards in our great country.

The defense of Philadelphia requires that the work of improvement should be begun as soon after the survey of it is made, as a full and perfect plan of a first-class navy yard can be prepared for it.

NAVY YARD, WASHINGTON, DISTRICT OF COLUMBIA.

This is one of our old and necessary navy yards. It is situated on tide-water, at the head of navigation, and is further inland, less accessible to assault from sea, nearer the mountains, and more defensible by fixed and floating defenses, and by obstructions, than any of the above-named navy yards. It is convenient to the supplies of timber, iron, and coal from Pennsylvania, Maryland, and the Virginias. The old "navy commissioners" appreciated and improved it. They gave New York and Washington the same number of ship-houses.

The proposed extension, on each side, amounting to sixty-six (66) acres, can be made now to great public advantage, and for a moderate price. It is most earnestly recommended that this be done without

delay. The navy also needs the opposite shore to Poplar Point, extending inland to a depth convenient for naval purposes.

The capacity of this yard for building, repairing, and equipping vessels, especially for building and repairing iron-clads, should be improved without delay.

The construction, proof, and trial of ordnance for the navy require, and should be provided with, a large, appropriate, and separate establishment. This navy yard is convenient and useful to the Navy Department for many experimental purposes.

The channel of the Eastern Branch of the Potomac, especially in front of the navy yard, requires, in consequence of the accumulated deposit of many years, to be made deeper and broader. This can be readily done. About half of the flats on the opposite shore should be filled up by dredging the channel side of them.

There are one or two places in the Potomac which can be conveniently improved by dredging, to the benefit of commerce, navigation, and defense. The pride of the country is high in the capital of the Union which so much has been done to preserve. The naval portion of the public establishment here should have the size and improvement required to make it efficient.

NAVY YARD, NORFOLK, VIRGINIA.

This is considered the best site on the Atlantic sea-board for a large navy yard.

The judgment of Commodore Decatur occasioned its selection. It is the only navy yard on the southern sea-coast.

It is situated near the capes of Chesapeake Bay, on the Elizabeth River, and its nearest part is about five miles above the locality convenient for obstructions and their defense against surprise and assault by sea.

Though near the sea, it is as inaccessible to attack as if it were far inland, possessing every advantage required for defense by sea and by land.

The situation is healthy, in a temperate climate, in the sea air, and on a firm, sandy soil abounding in pines.

The harbor is accessible at all seasons of the year, and is one of the best on the Atlantic coast of the United States. It is free from all obstruction and damage from ice.

An extent of land and of water front, with deep water, desirable for a great modern navy yard, can now be had on the unimproved banks of the Elizabeth River.

The Dismal Swamp will afford at small cost fresh water for a great extent of basins, in which scores of iron-clads may be kept without rusting, floating in fresh water, (free from all impurity,) or blocked up dry and ventilated, ready for sudden service, especially for the defense of our great sea-board cities, the national capital, and the State and commercial capitals of Virginia and Maryland.

The Chesapeake Bay, with its fine navigable rivers and the railroads made and making, connect it safely and conveniently with the timber, iron, and coal regions of both Virginias, Maryland, and Pennsylvania. Its central and favorable position on the coast connects it by safe and easy water communication with the live oak, pine, and other ship timber of Florida, Georgia, and the Carolinas, and with the naval resources of the northern cities.

Good mechanics are attracted here by the mild climate, cheap homes,

and the steady employment which experience has shown that the necessity of the government requires and supplies.

Here may be large and useful arsenals for the construction, repair, equipment, and safe-keeping of armed and armored vessels of wood and iron; for the fabrication and delivery of cannon and munitions of war; rope of hemp and wire; and for the storage of the great quantity of material needed for the number and kinds of vessels which war and peace now require.

We earnestly recommend the immediate purchase for naval purposes of both banks of the Elizabeth River, from the navy yard to the locks of the Dismal Swamp canal, for the breadth of one mile from the middle of the river.

This important site, worthy of defense, and on good lines by sea and land, may now be got for the low price of farm land in that region.

Its natural features, proximity to the sea, central position on the coast, mild climate, secure defense by sea and land, large, accessible harbor, safe from wind, sea, and ice, grand extent of fit and inexpensive land, supplying the most abundant and convenient water front, and almost natural basins, like Paradise Creek, are extremely favorable for the construction of a great and national navy yard for all the purposes which modern naval warfare requires.

The government has declared the importance of this navy yard by the large fortifications erected at Fortress Monroe and the Rip Raps.

GENERAL REMARKS.

The department system.—The department system is a good one for the navy yards. Under it there is more official information, responsibility, and efficiency, better supplies are obtained, and they are better kept, and there is more economy in the use of public property than existed under the old way.

There was then a general store with a politician for a nominal store-keeper, who was usually represented by his own deputies; and there was a clerk of the yard, a person of political influence, who mustered at one place all the workmen of the yard, with a certain loss of time, and an uncertainty as to the presence of some whose names were called in the crowd. Now, each department inspects and keeps its proper supplies, musters its own men, and has other checks to make sure of their presence and attention. Each department is meant to bear a just relation to the whole establishment, and is capable of ready and convenient expansion in time of war.

Commandant.—The commandant of the navy yard receives and executes the orders of the Navy Department and its bureaus, and with the assistance of the executive officer superintends all the departments of the navy yard.

It would be convenient in practice if the executive officer ranked the heads of these departments.

Yards and docks.—A line officer of good administrative ability, ranking, when practicable, next after the executive officer, should specially represent the Bureau of Yards and Docks in each navy yard. He should have charge of the present duties of that department; of the police and fire organizations in the navy yard and afloat; of all vessels in ordinary, and of moving them; of the dock-yard gang, and of all the transportation in the navy yard. When works of naval improvement are required on plans furnished by the Bureau of Yards and Docks he will execute them with knowledge of the wants of the naval service, zeal, fidelity,

and responsibility. A commander, lieutenant, master, and boatswain should be attached to this department to give it efficiency.

Construction, &c.—The army officers build their forts, and the navy officers should build their ships. They must understand better than a citizen who has never sailed or fought a ship, or, perhaps, been to sea in his life, what an efficient man-of-war should be in sea-going and fighting qualities. It is recommended that no more appointments of naval constructors be made, and that the duty of construction and repairs shall, as vacancies occur, be performed by selected and trained navy officers.

The public interest requires that informed and responsible officers, coming from all parts of the country, in proportion to population, and educated for the naval purposes of the country, should do the duty of naval administration in all its parts in the stations ashore and afloat, in the squadrons, and in the navy yards. As all this duty is improving to the young officer, and beneficial to the service, not less than two or three officers should be attached to each department of the navy yards, and the relief of officers should be so arranged that at least one experienced officer, familiar with the situation and its duties, should always be present on duty.

Purchasing officers.—Purchasing officers should be stationed in the navy yards, under the immediate control of the commandant, and in convenient communication with the heads of departments; then there would be no loss of time in communicating with them; they would promptly receive their instructions, and be made acquainted, by explanation and sample, with the kind and quality of articles required, and they can exhibit the state of the market and explain their purchases to the heads of the departments requiring the article, and to the officers inspecting it. From the navy yards they can readily reach, when necessary, the large dealers in the cities, and dispense with the large, costly, and unnecessary establishments formerly used by the political navy agent, and now by these purchasing officers.

It is of grave importance to the public interest to have this duty performed by informed and responsible naval officers, acting under a sense of duty and the obligations of discipline.

Fire and police.—The government has a vast amount of valuable property exposed to loss from fire in the navy yards. It undertakes to insure itself. A small part of what it would cost to insure this property would provide steam engines, hydrants, hose, and efficient fire and police organizations within the navy yards. Ample means are economical in the quick suppression of fire.

Where there is a sufficient pressure of water from the outside water-works it should be taken by pipes and hose into all the storehouses now without it; into the offices and such ship-houses as have platforms and galleries from which the hose can be led out. It would be proper also to have outside hydrants at convenient distances from the buildings, and a sufficient number of steam fire-engines, of the first class, distributed in each yard, with horses ready to move them in case of snow and mud.

Where there are no outside water-works more steam engines are required, and more hose to take water from the navy-yard cisterns, which should furnish a good supply, and from the harbor or river water in front of the yards.

Each navy yard should have for the vessels in ordinary and in the stream a well provided and organized fire tug. The steam fire-engines and tug-boat should be always ready for immediate use. Hand-engines should be only kept to pump out cellars and places where the sand, &c., might injure a steam engine.

A good organization for the police of the navy yards and the prevention or suppression of fires, may be made by a combination of marines, watchmen, and experts.

Navy-yard watchmen should be men of well known good character and capacity. This organization should be in the navy yards in full force except in working hours when a sufficient part of it should be present, and receive aid from an organization of the mechanics, as now.

Good arrangements to prevent fires or to put them out admits of closing the gates, excluding unnecessary persons, thieves, and incendiaries, the preservation of good order, and the prompt application of sufficient means.

Buildings, &c.—These should, to the utmost practicable extent, be made of brick or stone, be fire-proof, and have slate roofs with dormer windows constructed to give good light and ventilation, and not to be obstructed by snow. Great care should be taken to have the light, draft for smoke, and the ventilation of the workshops perfect. All foundations should be built in the strongest manner.

The buildings at the Norfolk navy yard, made wholly of brick, were far less injured by the fire than those partly of granite. It is important hereafter to have, as far as may be practicable in regard to present improvements, extent and shape of grounds, &c., the works of construction in the several navy yards made on settled general plans which the Bureau of Yards and Docks should receive from a board of survey for the navy, and file at each navy yard.

Hereafter the structures should be alike for like purposes in navy yards of corresponding class, and they should be the best of their kind for the use intended in respect to appropriate location, size, equipment, convenience of labor, light, and ventilation, and relative proportion to the rest of the establishment. Machinery in a second story must interfere with the light and ventilation of the shop below, and when both stories are occupied by workmen, and worked to their full capacity, the shaking of the upper shop may be injurious to the building and occasion imperfect work. It is generally best where there is room and means, to have one-story workshops.

No department of the yard should have an undue share of it. Workshops and storehouses should not occupy in our small navy yards water front required for building and launching slips, dry docks, and for vessels fitting out or dismantling.

With a proper steam railway system it is not inconvenient or expensive to move material from the shops and stores located back in the yards, to the vessels building, repairing, or equipping at the water front.

Grade, drain, and pave the navy yards.—Establish the grade for the entire area of each navy yard, and pave and drain every street. All sewers, when they cannot be taken outside of the navy yards, should be conveniently located, built well, and under the streets.

Railways, cars, and engines.—Complete this cheap and effective system of transportation and dispense with the slow and expensive use of carts and horses, oxen and large wheels. Provide suitable burden or platform cars, and engines to move them, and lay the additional tracks required to connect all the workshops and storehouses of every kind with the wharves, dry docks, and ship houses.

Every street should have a railroad.

There should be weighing scales at convenient places on the railroad tracks.

Inspecting supplies.—Each bureau should publish complete directions for inspecting and testing all the navy supplies it receives; and each department in every navy yard should be provided with all necessary means to make fair and sufficient tests.

Manufacture and cure of rope.—The navy should manufacture all the rope, cordage, and lines it uses. Cordage made in the Boston navy yard has been found by frequent comparative tests to exceed the ordinary market rope in strength fifty per cent. Instead of advertising for and buying rope in market it should be required from the navy rope-walk.

Cordage and fitted rigging (especially when tarred) deteriorates in a warm, dry atmosphere rapidly. It should not be kept in lofts close under hot roofs, nor exposed to the sun's rays in stores opposite windows. It keeps best in a cool cellar not too dry nor yet so damp as to cause mildew. We recommend the open purchase, by a responsible and informed officer, in the Russian and Manilla markets, of the foreign hemp which is yet indispensable for the use of our navy, and when practicable, to ship it by a returning navy store-ship.

In this way the best article may be got at the lowest price, and speculators prevented from imposing exorbitant prices on the government for their risk in importing the quality required for the navy.

It is understood that the English and French governments pursue this course, taking choice in the market next after the Russian government.

Dredging machinery.—The navy yards should be well supplied with dredging machinery and appurtenances of the best kind for keeping deep water in the channel in front of, and in the approaches to them.

The material got by dredging will, for some time to come, be needed for filling up low places in the navy yards, and can be advantageously used for this purpose.

Timber sheds.—It is of great importance to the public interest to have an ample supply of good ship timber, obtained at fair prices, stowed and seasoned in the navy yards.

Unseasoned or defective timber occasions great loss by the rapid decay of our ships. It is true economy to have plenty of well constructed timber sheds, and it is thought advantageous, when it is practicable to do so, to have them placed lengthwise on north and south lines, so that the timber on each side of them may be subjected to like exposure and seasoning.

Timber sheds seem to be a much better provision for stowing and seasoning good timber cut in season than wet docks.

Owing to the want of sufficient and proper stowage in the navy yards for valuable ship timber, much of it is, by exposure to the weather, injured and lost.

Officers' quarters.—It is essential that all the leading and as many of the officers attached to a navy yard as can be provided for, should reside in it, so that they may be readily available for service day and night. Quarters for officers should be constructed on a fixed plan and specifications. They should not be inconveniently large or expensively furnished.

It is better to accommodate every officer at a small expense, than a few officers at a large expense of space and building. If the pattern of the house and furniture is fixed by rule it will be apt to give satisfaction, be economical and useful.

Wet basins.—Wet basins are much needed for the care and preservation of vessels in ordinary. There is not room at any of the navy yards to keep them on the water front, where they are also exposed to

injury from storms and in some cases from rise and fall of tide, and from moving ice.

Telegraph.—There should be telegraph and fire-alarm communication between the offices of the commandant, heads of departments, and the police stations in every navy yard.

Heads of mechanical departments.—The competent and faithful heads of mechanical departments in all the navy yards should be appointed warrant officers of the navy, to hold their appointments during their efficiency and good behavior, subject to the responsibility of officers, and free from the pressure of local political control over them.

Stores—their transfer or sale.—The war left an excess of supplies in some navy yards and a deficiency in others; also an excess in some and a deficiency in other departments of the same navy yard. The quantity of supplies kept in a navy yard, or department of it, should be in proportion to its issues.

Surveys, where the quantity and quality of supplies are not known, transfers, where the returns show excess in one yard or department, and want or scarcity in others, and sales when there is an excess of perishable articles which cannot be distributed advantageously, will promote the public interest. Provisions over a year old should not be sent to sea.

The bureaus, and the heads of departments under them in the navy yards, should exchange lists and adjust this subject, which could be better done by a common head—a board of survey for the navy.

Engines in store, &c.—Good engines stowed in the navy yards should be erected under cover, complete in every part, turned and oiled. The boilers, smoke-stacks, &c., should be kept under cover and well painted. Where the boilers are necessarily exposed to the weather, they should be kept blocked up from the ground, well painted, and all their openings well closed.

Gas.—The workshops, store-houses, and offices should be fitted up with gas ready for use when night work is required.

Every navy yard should be well lighted all over every night, from sunset to sunrise, as a cheap and good means of police.

Water-closets and urinals.—Water-closets and urinals should be put up in a good manner for keeping them clean, and in sufficient numbers in all the workshops, and in other near and convenient places, to answer the wants of the workmen when the yards are worked to their full capacity.

Charts.—A complete set of charts should be kept ready for convenient reference in the navigation department of every navy yard.

Flags.—All of our national flags should show the full number of stars required by law.

Scrap iron and composition.—It is better to use much of this material than to sacrifice it at public sale, and when it has been suffered to accumulate in a navy yard the better part of it should be at once put into shape for return into store and reissue, and the rest sold.

Employés.—The title and compensation of persons employed in different departments of the same navy yard, and in corresponding departments of the different navy yards, of equal class, differ in some cases.

A board of survey for the navy should regulate this subject.

Engines and boilers stowed in the navy yards.—See list annexed.

The board is of opinion that the engine of the Wampanoag class is not suitable for a vessel of war. Of the three qualities required, power is the only one which it appears to possess.

With regard to the engines of the vessels of the Mosholu class, the

board is of opinion that it may answer temporarily to retain those for which vessels have been built. We recommend that the geared engine 100 inches by 4 feet, and the engine 60 inches by 3 feet, for which two engines there are no vessels built or building, and the five (5) engines for "double enders" be broken up and the material put into convenient shape for reissue and turned into store, except such parts as may be needed as duplicates for engines in use.

The four (4) 50-inch, and the two (2) 36-inch engines are economical and efficient, and should be kept until the type of vessels required for naval purposes is determined by the proposed board of survey for the navy.

A set of uniform regulations for the navy yards will be forwarded when prepared.

The board makes its thankful acknowledgment to the commandants, other officers, and heads of departments of the navy yards for information and facilities.

Chief Engineer Alexander Henderson and Ensign G. S. Davol have performed their duty very much to our satisfaction.

Mr. Henderson has acted as voluntary draughtsman to the board.
Respectfully submitted.

C. K. STRIBLING,
Rear-Admiral and President.
J. L. LARDNER,
Rear-Admiral.
SAMUEL PHILLIPS LEE,
Commodore.

HON. GEORGE M. ROBESON,
Secretary of the Navy.

Copy of instructions to the board.

NAVY DEPARTMENT, *March 11, 1869.*

SIR: You are hereby appointed senior officer of a board to examine into the condition of our navy yards, after the completion of your present duty.

The following named officers have been directed to report to you at the New York navy yard, where you will commence your labors: Rear-Admiral Stribling and Commodore S. P. Lee.

It is desirable first to ascertain the condition and wants of our navy yards, so that they may be rendered efficient in time of war.

It is also desirable to have the permanent peace establishment and the expenses of the yards reduced to the lowest scale consistent with efficiency and economy. Not a single person should be retained in the yards whose services can be dispensed with.

You will report to the department on the preservation and care of public property at the yards.

Chief Engineer Henderson has been directed to report to you, to assist the board in the examination of engines that are stowed away in the different yards, but not as a member of the board.

You will state what these engines are, their capacity, and what sized vessels they were built for; also by what authority they were constructed, at what time, whether they are suitable for vessels of war, taking into

consideration power, economy, and efficiency, and if not, if any portions of them can be used in constructing other engines, or if anything in the Engineer department can be disposed of with advantage to the government. You will examine closely into the present organization of the yards, and recommend if anything more simple and efficient can be devised.

It is desirable to bring every department of the yards under the immediate authority of the commandant.

You will furnish lists to include every person now employed in the yards, and a list of reductions you propose.

You will report if there is any public property which it is desirable to sell.

You will examine the condition of the dry-docks, and state whether they are capable of repairing our naval vessels in war time. You will also make such recommendations as you may deem proper in regard to providing additional dry-docks for the use of the navy.

You will draw up a uniform set of regulations for the government of the different yards, and transmit them to the department.

Besides the matters above enumerated your duties will require you to examine into everything coming under your notice, in order to bring about a better system of economy than now exists.

To enable the board to obtain full information on all subjects the commandants of the several yards will be associated with you, and will furnish you with such a number of draughtsmen and writers as you may require.

For the present your investigations will be confined to the navy yards at Portsmouth, Boston, New York, Philadelphia, Washington, and Norfolk.

You will furnish your report with the least possible delay, in succinct form, and tabulated so that it can be referred to without difficulty.

Very respectfully,

A. E. BORIE,
Secretary of the Navy.

Rear-Admiral S. H. STRINGHAM,
United States Navy.

Statistics of the United States navy yards at Portsmouth, New Hampshire; Boston, Massachusetts; New York, New York; Philadelphia, Pennsylvania; Washington, District of Columbia, and Norfolk, Virginia, submitted by the Board on Yards and Docks, October, 1869.

DEPARTMENT OF YARDS AND DOCKS.

Comparative tabular statement of the areas of the navy yards, their water fronts, boundaries, wharves, derricks, cranes, workshops and tools, railways, steam power, fire and water apparatus, &c., in this department.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas of navy yards.....acres.	66.00	83.50	150.36	21.36	42.00	82.50
additions.....do.	*171.00		†33.00			‡36.00
Total.....do.	237.00	83.50	183.36	21.36	42.00	102.50
Areas of carpenter shops.....sq. feet.	7,000	8,026	3,450		8,776	
machine shops.....do.		1,844	3,750			
paint shops.....do.		702			3,112	
smith shops.....do.	1,364	2,024	2,250			
general stores.....do.	7,500	6,260	6,625	8,349	10,797	21,000
lumber.....do.	3,500	3,000	10,781	2,900	6,638	
stables.....do.	4,000	6,910	5,000	1,306	2,964	2,125
Boundaries—stone or brick.....yards.	Island.	1,779	1,341	1,063	1,628	1,628
fence.....do.	Do.	70	815			
open.....do.	Do.		882			
Cranes, iron.....number.	2	2	2	1	2	1
wood.....do.	6				1	
iron, lifting capacity.....tons.	15	5	10	5	10	65
wood, lifting capacity.....do.	10		10		65	
Derricks, iron.....number.			1			
wood.....do.			1			
iron, lifting capacity.....tons.			50			
wood, lifting capacity.....do.			50			
Fire engines, steam.....number.	2	2	1	1	1	1
engines, hand.....do.	4	4	6	1	4	1
hydrants.....do.		35	42	13	11	
hydrants, pressure on.....do.		55	50	40	45	
mains, length of.....yards.		4,566	4,076	1,636	2,993	
reservoirs.....number.	4	4	7			4
reservoirs.....capacity.	390,000	675,000	252,000			501,000
Mechanics, carpenters and joiners||.....number.	30	45	30	12	100	25
machinists.....do.		36	30			
painters.....do.	6				40	
smiths.....do.	6	10	8			
Sewers, length of.....feet.	533	1,212	2,643	566	1,463	200
Shears.....number.	2	2	2	2	1	
height.....feet.	126	130	125	110		
overhang.....do.	126	105	95	60	100	
capacety.....tons.	36	28	30	25	24	
capacety.....tons.	60	60	60	50		
capacety.....tons.	50	50	55	40	25	
Tracks, length of.....yards.		1,417	1,583	1,467	1,265	1,383
Tools—wood working:						
Mortising machines.....number.		1			1	
Planing machines.....do.		1	1		2	
Tenoning machines.....do.		1			1	
Saws, circular.....do.		2	2		3	
Saws, jig and scroll.....do.		1			1	
Saws, upright.....do.		1			1	
Tools—for iron working:						
Bolt cutters.....number.		1	1			
Drills.....do.		2	2			
Lathes, medium.....do.		3	2			
Lathes, small.....do.		3	2			
Milling machines.....do.		1				
Planers, medium.....do.		1				
Planers, small.....do.		1	1			
Punching machines.....do.		1	1			
Shaping machines.....do.		1	1			
Slotting machines.....do.		1	1			

*Seavey's Island.

†Cob dock.

‡St. Helena.

§Refers to permanent shops only.

||Refers to number of mechanics for whom there are permanent workshops and tools.

Comparative tabular statement of the areas of the navy yards, &c.—Continued.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Tools—for iron working—Continued.						
Power, engines.....number.....		1	1			
Power, boilers.....do.....		2	2			
Water front, navy yards.....yards.....	1,866	1,729	1,166	273	410	1,287
additions.....do.....	*2,700		1,440			333
Total.....do.....	4,566	1,799	2,606	273	410	1,620
Water front in slips.....do.....	236	916	203	114	202	232
Total water and slip fronts.....do.....	4,802	2,645	2,809	387	612	1,852
Wharves, of stone.....do.....	129	738	357		410	411
wood.....do.....		243	450	139		413

DEPARTMENT OF CONSTRUCTION.

Comparative tabular statement of the dry docks, building and launching slips, ship-houses, workshops and tools, capacity for mechanics, store-houses, timber sheds, &c., in this department.

Alphabetical list of improvements.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Area of block shops.....sq. feet	1,150	5,650	4,500	2,772	9,044	12,837
boat shops.....do.....	8,176	21,890	18,275	6,555		25,675
brass foundries.....do.....					6,150	
copper rolling-mills.....do.....					23,940	
cooper shops.....do.....			10,800			
joiner shops.....do.....	8,892	39,696	17,219	9,738	8,776	21,000
iron plating machine shops.....do.....	10,500	7,276	24,000	48,000	4,563	3,640
mast shops.....do.....	17,500	24,630	18,275	10,000		28,925
mold lofts.....do.....	17,500	21,650	13,475	12,760	12,780	28,925
paint shops.....do.....	3,912	10,240	8,000	2,652		12,650
plumber, copper and tin smith shops.....sq. feet	7,656	7,900	7,975	4,060	4,299	3,500
saw mills.....do.....	5,336	18,750	13,200	10,878	6,532	7,104
shipwright shops.....do.....		7,000	5,025			8,775
smitheries.....do.....	12,964	\$19,260	22,000	7,800	2,200	13,250
for general storage.....do.....	8,157	21,638	25,997	13,340	5,780	11,700
for metal and iron storage.....do.....	12,382	11,340	10,260	8,586	5,682	11,700
for furniture storage.....do.....	20,000	5,584	6,499	4,864		
for tanks.....do.....	5,000	7,232	13,000			
for oils and paints.....do.....	600	2,184	1,500	4,089		10,080
Dry docks:						
stone, for docking purposes.....length.....		341 ft.	320 ft.			281 ft.
stone, for docking purposes.....width.....		60 ft.	70 ft.			60 ft.
stone, for docking purposes.....draught.....		25 ft.	25 ft.			25 ft.
wood.....length.....	324 ft. 8 in.			1,282 ft.		
wood.....width.....	90 ft.			175 ft.		
wood.....sections.....	8			55 ft.		
wood, lifting capacity.....tons.....	3,500			46 ft.		
basins.....length.....	360 ft.			9 ft.		
basins.....width.....	120 ft.			5 ft.		
basins.....depth.....	14 ft.			5,000	**1,000	
Mechanics:				2,400		
block makers.....number.....	15	25	20	317 ft. 5 in.		50
				226 ft.		
				12 ft. 9 in.		

* Seavey's Island.

† Cob dock.

; Conjointly used with yards and docks.

§ Conjointly used with steam engineering.

|| Balance. This dock sits in the center with short vessels like frigate New Hampshire 12 inches; with Minnesota 5 inches; with Piscataqua 3 inches.

¶ Section. a Railway.

** Is covered in similar manner to a ship-house.

†† The dry docks at Portsmouth and Philadelphia have hauling-out railways and hydraulic machinery.

Comparative tabular statement of the dry docks, &c.—Continued.

Alphabetical list of improvements.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Mechanics—Continued.						
boat builders number	30	80	75	95	.....	50
joiners do.	60	175	100	70	30	100
iron platers and machinists do.	60	60	60	6	30	12
mast and spar makers do.	60	100	100	40	.....	100
painters do.	30	50	40	30	2	50
plumbers, copper and tin smiths do.	40	130	150	30	30	20
shipwrights, sawyers, &c do.	45	130	125	45	35	70
smiths do.	50	100	100	30	12	60
Oakum, storage for number	1,352	1,420	4,046	1,615	*4,046	.....
Pitch-houses do.	1	3	2	1	1	2
Pitch-kettles, permanent do.	4	12	8	4	4	6
Ship-houses do.	3	3	2	2	2	.....
length feet.	330 325 300	307 259 260	360 350	318 253	306 286	.....
width do.	120 85 130	142 142 142	128 140	110 60	97 116	.....
Shipbuilding and launching ways number	.....	3	1	.....	.....	14
Timber sheds do.	6	4	5	2	1	2
length of feet.	200	453	300 400 60 60	300 260 62 60	265	400
width do.	65	60	.....	65	65	65
storage area sq. feet.	78,000	108,000	102,000	34,200	17,225	28,000
Tools:						
block shops, boring machines number	51	11	52	.....	.....	.....
bushing machines do.	.....	1	.....	.....	.....	.....
drilling machines do.	.....	1	1	.....	.....	.....
lathes do.	2	5	12	.....	.....	.....
rounding machines do.	.....	1	.....	.....	.....	.....
circular saws do.	1	3	2	.....	.....	.....
jig saws do.	1	1	.....	.....	.....	.....
plug machines do.	.....	1	.....	.....	.....	.....
treenail machines do.	1	.....	.....	.....	.....	.....
planers do.	1	1	.....	.....	.....	.....
brass foundry, cranes do.	.....	.....	.....	.....	1	.....
furnaces do.	.....	.....	.....	.....	1	.....
crucibles do.	.....	.....	.....	.....	1	.....
ovens do.	.....	.....	.....	.....	1	.....
joiners' shops, borers do.	.....	1	1	.....	1	.....
elevators do.	.....	1	.....	.....	.....	.....
lathes do.	6	3	2	.....	2	.....
mortising machines do.	1	1	1	.....	1	.....
molding machines do.	.....	1	2	.....	1	.....
plug machines do.	1	1	1	.....	.....	.....
planing machines do.	5	5	3	.....	1	.....
saws do.	4	4	6	.....	2	.....
tenoning machines do.	1	1	.....	.....	1	.....
engines, for driving do.	5	1	1	.....	5	.....
boilers, for driving do.	.....	4	2	.....	.....	.....
machine and iron plating bolt cutters do.	2	2	1	.....	1	.....
drills do.	5	6	5	.....	2	.....
lathes do.	8	10	12	.....	18	.....
planers do.	2	2	3	.....	3	.....
punches do.	2	1	3	.....	.....	.....
shaping machine do.	1	1	2	.....	1	.....
shears do.	2	1	1	.....	1	.....
slotters do.	1	1	1	.....	.....	.....
sheet planers do.	1	.....	1	.....	.....	.....
engines do.	1	1	2	.....	1	.....
boilers do.	1	1	1	.....	1	.....
saw mill, mortising machines do.	.....	.....	1	.....	.....	.....
molding machines do.	.....	.....	2	.....	.....	.....
planers do.	2	4	4	3	2	1
saws do.	6	4	7	3	3	2
steam boxes do.	2	3	2	2	.....	1
tenoning machines do.	.....	.....	1	.....	.....	.....
engines do.	1	1	1	1	.....	1
boilers do.	2	2	2	1	1	2
smithery, bolt cutters do.	c	cl	2	.....	.....	.....
cranes do.	.....	2	2	.....	.....	.....

* Receives power from saw-mill, and is filled with preparing machinery.

† Formerly were covered over with ship-houses.

‡ Receives power from machine shop.

§ Receives power from saw mill.

|| Used conjointly with yards and docks.

c Used conjointly with steam engineering.

Comparative tabular statement of the dry docks, &c.—Continued.

Alphabetical list of improvements.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Tools—Continued.						
smithery, furnaces..... number.....		2	2			
forge fires..... do.....	16	36	60	30	5	40
steam hammers..... do.....	2	4	3	1		1
helve hammers..... do.....	4	1	1			
punches..... do.....	1	1	1	1		
shears..... do.....	1	1		1		
engines..... do.....			1	1	*	1
boilers..... do.....			2	1		2

DEPARTMENT OF STEAM ENGINEERING.

Comparative tabular statement of the areas of workshops, of tools, capacity for workmen, storehouses, &c., in this department.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas of workshops :						
boiler shops..... square feet.....	9,600	17,562	7,700	4,014	12,720	15,750
coppersmith's shops..... do.....	1,700	3,800	(†)	(:)	(§)	(:)
forge shops..... do.....		17,500	(||)			
foundry, iron and brass..... do.....	5,142	26,908	26,400	2,700	14,904	20,000
machine shops..... do.....	20,757	61,249	28,347	14,592	52,749	29,948
pattern shops..... do.....	7,656	17,362	9,521	2,550	21,000	5,000
smithery..... do.....	(¶)	119,260	11,792	(:)	**13,640	(:)
storage for general purposes..... do.....	5,641	18,028	16,984	9,963	5,950	29,400
storage for coal, in tons..... do.....		2,400				
Employment for workmen :						
boiler makers..... number.....	75	200	100	30	100	100
coppersmiths..... do.....	8	20	10	5		4
forgemen..... do.....		50				
helpers of all kinds..... do.....	100	400	250	100	350	100
machinists..... do.....	150	350	200	75	350	150
molders, iron and brass..... do.....	25	150	150	20	100	125
pattern makers..... do.....	12	50	30	10	50	20
smiths..... do.....	8	100	40	4	25	10
Total.....	378	1,320	780	244	975	509
Tools. (boiler shop :) :						
bolt cutting machines..... number.....		1	2			
boilers..... do.....	1		1	1		1
drilling machines..... do.....	1	3	5	2	2	1
engines..... do.....	1	††1	1	1	(**)	1
forges, smith's purposes..... do.....	2	4	4	2	8	6
flange purposes..... do.....	1	2	1	1	2	1
hammers, steam..... do.....	1	1		1		
power..... do.....			1		2	
lathes..... do.....		4				
planing machines..... do.....	1	1				
punches, large..... do.....		1	1			
medium..... do.....	4	2	2	1	1	1
small..... do.....	2	2	2	1	1	1
flange..... do.....	1	1	1			
riveting machines, steam..... do.....	1	2		1	1	
power..... do.....	1		1		1	
rivet making machines..... do.....		§§1				
rolls for plates, large..... do.....	1	1	1	1	1	1
small..... do.....	1	1	1	1		

* Receives power from equipment camboose.

† Temporarily in wing of foundry.

†† Temporarily in end of boiler shop.

‡ Work done in construction department.

|| Combined with smithery.

¶ Used conjointly with construction.

** Used conjointly with equipment.

†† Receives steam from main boilers.

‡ Receives power from machine shop engine.

§§ Building by contract.

Comparative tabular statement of the areas of workshops, &c.—Continued.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Tools, (boiler shop)—Continued.						
shears, angle iron..... number.		1				
large..... do.	*1	2			1	
medium..... do.	2	2	1	1	1	1
small..... do.	2	2	*1		1	2
Tools, (forge shops:)						
blowers, circular..... number.		3	2		2	1
boilers for engines..... do.		3	1			
over furnaces..... do.		6				
cranes, large..... do.		2				
medium..... do.		1	*2	1	2	1
small..... do.		1	1			
engines, large..... do.		1	1			
small..... do.		1	1		1	
furnaces, large, shafts..... do.		2				
medium, shafts..... do.		2	1			
blooms..... do.		2	1			
bolts and nuts..... do.	2	4	4		4	2
heading machines, 2" bolts..... do.	1	1	1		1	1
2" nuts..... do.	*1	*1	*1		*1	*1
1" bolts..... do.	1	1	1		1	1
1" nuts..... do.	1	1	1		1	1
hammers, helve..... do.		1				
steam, large..... do.		1				
medium..... do.	1	1	1			
small..... do.	2	3	2			
shears, heavy, for blooms..... do.		1				
plates..... do.	*1	1	*1			
Tools, (founderies, brass and iron:)						
air furnaces..... number.		3	2		2	1
blast engines..... do.			1			
blowers, circular..... do.	1	2		1	4	2
boilers..... do.			2	1	2	
core ovens, large..... do.		3	2		2	
small..... do.	1	1	1	1	1	1
cranes, geared..... do.	2	4	3	2	4	2
steam..... do.						2
traveling..... do.		1				
hydraulic..... do.		1				
cupalos, large..... do.		1				
medium..... do.	1	1	3	1	3	2
small..... do.	1		1	1	1	1
engines..... do.	(?)	11	1	1	2	11
melting capacity, tons..... do.	10	60	60	8	45	30
pits for loam work..... do.	1	3	3		2	2
Tools, (machine shop:)						
boilers, fixed..... number.	3	8	2		5	2
portable..... do.	1			1		
bolt cutters to 3" chain..... do.					1	
2" chain..... do.	1	2	3	1	2	2
1" chain..... do.	2	1	1	1	2	1
boring machines, cylinders..... do.		*1	1	1	1	
12" table..... do.		1	*1		1	
8" table..... do.	1	1				
6" table..... do.		1		1		
4" table..... do.	2	1			3	
3" table..... do.	2	2	1	1		
small..... do.			1		1	
portable..... do.	1	1	2	1	2	1
cranes, geared..... do.		4	2	4	8	2
hydraulic..... do.		2				
drills, column..... do.		§1	*1			
upright, large..... do.	2	2	2		5	
medium..... do.	3	2	5	4	6	3
small..... do.	6	6	3	6	5	4
radial, 12' arm..... do.		1	*1		1	
10' arm..... do.		1				
8' arm..... do.	1		1	1	1	
portable..... do.		4	4	3	1	
engines, large..... do.	1	1	1		1	1
small..... do.	1	2		2	1	
fire hose attachments..... do.		2			6	
gear cutters for 10' diameter..... do.		1				
6' diameter..... do.		1		1	1	1

* Building by contract.

† Receives steam from main boilers.

‡ Receives power from machine shop engine.

§ Largest in United States.

Comparative tabular statement of the areas of workshops, &c.—Continued.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Tools, (machine shop)—Continued.						
gear cutters for 3/4 diameter..... number	1	1	1			
small..... do	1	1	1			
key cutters, large..... do	1	1	1			
medium..... do	1	1	1		1	
small..... do	1	1	1		1	
lathes, for crank shafts..... do		†1				
about 10' swing..... do	1	1			1	
8' swing..... do	1	1	2	1		1
6' swing..... do	†1	1	2	1	1	1
4' swing..... do	†1	3	2	†1	3	1
3' swing..... do	3	1	†1	3	4	4
2' swing..... do	8	20	10	2	7	29
1' swing..... do	27	28	33	15	14	15
small..... do	1	15	3	2	5	
chuck..... do		1	1			
brass work especially..... do	2	10	†1	1		
milling machines, large..... do	1	1			1	
small..... do	1		2	1	1	
planers, 18' width..... do		†1				
about 12' width..... do	†1	1	1	†1	†1	
10' width..... do		†1			1	1
8' width..... do	1	1	†1		1	
7' width..... do	1	1			2	
6' width..... do	†1	1	†1			
5' width..... do	1	1		1	2	
4' width..... do	†1	2	†1	1		
3' width..... do	1	3	2	1		2
2' width..... do	5	4	7	3		
small..... do		4	2	3		9
shaft straightening machines..... do	1	1			1	
slotters heavy..... do		†1				
about 36" stroke..... do	1	1	1	1	1	
30" stroke..... do	1	1				
20" stroke..... do	1	1	1		1	1
15" stroke..... do	1	1	1	1		1
12" stroke..... do	2	1	1		3	1
8" stroke..... do	1	2	1			
shapers, large..... do		†1				
18" stroke..... do	1		1		1	
15" stroke..... do	1	2				
12" stroke..... do	1	2	2	2	6	1
6" stroke..... do	1	1	4		2	6
boring machines..... do		1				
grooving machines..... do			†1			
lathes, turning..... do	2	3	4	1	4	3
face..... do	1	2	2	1	3	1
mortising machines..... do		1	1		1	
planers, horizontal..... do	1	2	1		1	
circular..... do	1	1	1	1		
saw, circular..... do	1	4	3	1	4	1
jig..... do			1			
upright..... do	1	2	3	1	3	1
tenoning machine..... do		1	1		1	

* Building by contract.

† Largest in United States.

‡ Building in the yard.

DEPARTMENT OF EQUIPMENT AND RECRUITING.

Comparative tabular statement of the workshops, tools, accommodation for workmen, storehouses, &c., in this department.

Alphabetical list of improvements.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas of workshops:						
anchor and forge shops.....feet...					32,400	
chain shops and smitheries.....do.					23,430	
galley shops.....do.					5,226	
rigging lofts.....do.	8,100	5,376	9,000	16,555	8,651	12,100
sail lofts.....do.	8,520	11,711	13,275	10,740	3,730	12,100
rope walk.....do.		99,187				
Mechanics, employment for:						
anchor and forge shops.....number...					70	
chain shops and smithery.....do.					125	
galley makers.....do.					30	
riggers.....do.	40	40	60	70	40	50
sail makers.....do.	60	100	100	70	20	100
rope makers.....do.		350				
Storage:						
for general purposes.....feet...	7,230	9,720	28,812	18,430	11,173	16,250
for chains.....do.	3,000		17,700	1,328		
for sails and rigging.....do.	4,500	2,977	9,375	10,740		12,550
for cordage.....do.		12,370	7,720	7,440		7,150
for tar.....do.		9,824				
for hemp.....do.		16,800				

DEPARTMENT OF ORDNANCE.

Comparative tabular statement of the areas of the workshops, their tools, and other buildings in this department.

Alphabetical list of improvements, &c.	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas of workshops:						
armory and inspection rooms.....feet.....	1,627	4,940	1,500		3,242	7,350
brass and iron foundries.....do.....					24,040	
gun-carriage shops.....do.....	3,255	10,030	7,150	6,480	4,851	14,700
laboratory, fuze, and cap shops.....do.....					5,280	
machine shops.....do.....	3,250	5,782	4,510		24,918	
riggers' lofts.....do.....	3,255	6,861	2,200			
smitheries.....do.....		4,000			1,200	
Mechanics, employment for:						
brass and iron foundries.....number.....					115	
gun-carriage makers.....do.....	50	60	35	30	25	60
laboratory men.....do.....					60	
machinists.....do.....		25	20		100	
riggers.....do.....	25	75	20			
smiths.....do.....		30			12	
Storage:						
for general stores.....feet.....	10,063	51,974	77,615	18,990	15,000	7,350
for gun carriages.....do.....	16,292	16,280	14,800	4,640	8,250	
for lumber.....do.....	6,616					
for projectiles.....do.....		5,551	25,870		11,541	
Tools in gun-carriage shop:						
boilers.....number.....	1	4				
boring machines.....do.....		1			1	
engines.....do.....	2	1				
lathes.....do.....	1	4			6	
planers.....do.....	1	1			1	
saws, circular.....do.....	1	2			1	
splitting.....do.....	1	2				
jig.....do.....	1	1			1	
Tools, machine shop:						
boilers.....do.....	*	*	1		4	
engines.....do.....	*	*	2		2	
bolt cutters.....do.....			1		1	
drills.....do.....		6	2		8	
lathes.....do.....	1	1	5		60	
milling machines.....do.....		2	1			
planing machines.....do.....		1	2		7	
slotting machines.....do.....		1			1	
testing machines.....do.....		1			1	
Tools, miscellaneous:						
fuze machines.....do.....					5	
conical and spherical ball machines.....do.....					2	
percussion cap machines.....do.....					1	
lead rolling machines.....do.....					1	
water cap machines.....do.....					5	

* Receives power from gun-carriage shop.

DEPARTMENT OF NAVIGATION AND HYDROGRAPHY.

Comparative tabular statement of the areas for storage and general purposes in this department.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas for general purposes.....feet.....	2,350	7,284	16,688	5,760	6,800	2,530

DEPARTMENT OF PROVISIONS AND CLOTHING.

Comparative tabular statement of the areas occupied for general purposes and storage of provisions, &c., in this department.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas for general stores.....feet..	13,986	30,070	*23,815	33,348	13,375	35,100
Areas for wet provisions.....do...	2/300	19,021	26,000	.....	.....	17,100

* This storehouse is fitted with steam power and machinery for preparing coffee, mustard, and other small stores.

Summary of the areas, water fronts, dry docks, building slips, derricks, railroads, steam and fire engines, &c., in the navy yards on the Atlantic coast of the United States.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Total areas of navy yards.....acres...	66.00	83.50	183.36	21.36	42.00	82.50
water fronts.....yards...	1,866	1,729	2,606	273	410	1,227
quay walls.....do...	129	738	357	.....	410	411
wooden wharves.....do...	.....	243	450	139	.....	413
masting shears.....number...	2	2	2	2	1	1
large cranes.....do...	.....	.....	.....	.....	1	1
derricks.....do...	.....	.....	1	.....	.....	.....
tracks.....yards...	.....	1,417	1,583	1,467	1,285	1,300
sewers.....do...	533	1,212	2,643	566	1,483	.....
steam fire engines.....number...	2	2	1	1	1	1
hand fire engines.....do...	4	4	6	1	4	1
hydrants.....do...	.....	35	42	13	11	.....
water mains.....yards...	.....	4,566	4,076	1,636	2,993	.....
wood working tools.....number...	47	82	70	23	48	11
iron working tools.....do...	173	340	264	114	312	142
engines.....do...	7	14	12	5	8	4
boilers.....do...	10	32	22	8	15	6
dry docks.....do...	1	1	2	2	.....	1
marine railways.....do...	.....	.....	.....	.....	1	.....
ship houses.....do...	3	3	2	2	1	.....
open launching slips.....do...	.....	3	1	.....	.....	4

Comparative statement of the number of dry docks and of open and covered building slips in all the navy yards of the United States and England, and in some of the French navy yards.

[Compiled by Ensign G. S. DAVOL, United States Navy.]

Navy yards.	Number of dry docks.	Number of ship houses.	Number of building slips.	Navy yards.	Number of dry docks.	Number of ship houses.	Number of building slips.
UNITED STATES.				ENGLAND—Continued.			
Portsmouth.....	*1	3		Devonport.....	4	§2	4
Boston.....	1	3	3	Chatam.....	4	¶7	
New York.....	†2	2	1	Woolwich.....	3	¶6	
Philadelphia.....	*2	2		Sheerness.....	5		1
Washington.....		1		Deptford.....	1	4	
Norfolk.....	1		4				
Pensacola.....				Total.....	29	24	5
Mare Island.....	*1						
Total.....	8	11	8	FRANCE, (in part.)			
ENGLAND.				Cherbourg.....	**8	4	7
Portsmouth.....	9	5		Toulon.....	9		16
Keyham.....	‡3			Rochefort.....	3		17
				Total.....	20	4	40

* Floating docks.

† One floating and one stone dock.

‡ One is 600 feet long.

§ One over dry dock.

|| Four are grouped together with a continuous roof.

¶ Four are of iron and glass entirely.

** Two of these docks are 600 feet long, by 70 feet wide.

DEPARTMENT OF PROVISIONS AND CLOTHING.

Comparative tabular statement of the areas occupied for general purposes and storage of provisions, &c., in this department.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Areas for general stores.....feet..	13,986	30,000	*23,815	33,348	13,375	35,100
Areas for wet provisions.....do...	2/300	19,021	26,000	.....	.....	17,100

* This storehouse is fitted with steam power and machinery for preparing coffee, mustard, and other small stores.

Summary of the areas, water fronts, dry docks, building slips, derricks, railroads, steam and fire engines, &c., in the navy yards on the Atlantic coast of the United States.

	Portsmouth.	Boston.	New York.	Philadelphia.	Washington.	Norfolk.
Total areas of navy yards.....acres...	66.00	83.50	183.36	21.36	42.00	82.50
water fronts.....yards...	1,866	1,729	2,606	273	410	1,297
quay walls.....do.....	129	738	357	.....	410	411
wooden wharves.....do.....	.....	243	450	139	.....	413
masting shears.....number..	2	2	2	2	1	1
large cranes.....do.....	.....	.....	.....	.....	1	.....
derricks.....do.....	.....	.....	1	.....	.....	.....
tracks.....yards.....	.....	1,417	1,583	1,467	1,265	1,383
sewers.....do.....	533	1,212	2,643	566	1,483	200
steam fire engines.....number..	2	2	1	1	1	1
hand fire engines.....do.....	4	4	6	1	4	1
hydrants.....do.....	.....	35	42	13	11	.....
water mains.....yards.....	.....	4,566	4,076	1,636	2,993	.....
wood working tools.....number..	47	82	70	23	43	11
iron working tools.....do.....	173	340	264	114	312	142
engines.....do.....	7	14	13	5	8	4
boilers.....do.....	10	32	23	8	15	6
dry docks.....do.....	1	1	2	2	.....	1
marine railways.....do.....	.....	.....	.....	.....	1	.....
ship houses.....do.....	3	3	2	2	1	.....
open launching slips.....do.....	.....	3	1	.....	.....	.....

Comparative statement of the number of dry docks and of open and covered building slips in all the navy yards of the United States and England, and in some of the French navy yards.

[Compiled by Ensign G. S. DAVOL, United States Navy.]

Navy yards.	Number of dry docks.	Number of ship houses.	Number of building slips.	Navy yards.	Number of dry docks.	Number of ship houses.	Number of building slips.
UNITED STATES.				ENGLAND—Continued.			
Portsmouth.....	*1	3		Devonport.....	4	52	4
Boston.....	1	3	3	Chatham.....	4	7	
New York.....	†2	2	1	Woolwich.....	3	6	
Philadelphia.....	*2	2		Sheerness.....	5		1
Washington.....		1		Deptford.....	1	4	
Norfolk.....	1		4	Total.....	29	24	5
Pensacola.....							
Mare Island.....	*1			FRANCE, (in part.)			
Total.....	8	11	8	Cherbourg.....	**8	4	7
ENGLAND.				Toulon.....	9		16
Portsmouth.....	9	5		Rocheport.....	3		17
Keyham.....	3			Total.....	20	4	40

* Floating docks.

† One floating and one stone dock.

‡ One is 600 feet long.

§ One over dry dock.

|| Four are grouped together with a continuous roof.

¶ Four are of iron and glass entirely.

** Two of these docks are 600 feet long, by 70 feet wide.

Tabular statement of the number of engines stored in the several navy yards, showing the class of vessels for which they are intended, and authority by which they were constructed, &c.

Class of vessels for which intended.	Names of vessels for which intended.	Rate.	In which navy yard stored.	Size of engine.	No. of pairs of engines and boilers.		Engines, where built.	By whom designed.	By what authority constructed or stored in the navy yards.
					Engines.	Boilers.			
Wampanoag.	Not built.	First.	Washington.	100" x 43"	1	4	Washington navy yard.	B. F. Isherwood	Navy Department to Bureau, Oct. 3, 1864.
Mushola.	Illinois.	do.	Portsmouth.	60" x 60"	1	4	Providence, R. I.	do.	Navy Department to Bureau, Mar. 10, 1868.
Do.	Kewadin.	do.	Boston.	60" x 60"	1	4	Boston.	do.	Do.
Do.	Java.	do.	New York.	60" x 60"	1	4	New York.	do.	Do.
Do.	Ontario.	do.	do.	60" x 60"	1	4	do.	do.	Do.
Do.	Not built.	do.	do.	60" x 60"	1	4	do.	do.	Do.
Do.	Antietam.	do.	Philadelphia.	60" x 60"	1	4	Philadelphia.	do.	Do.
Kenosha.	do.	Second.	Boston.	50" x 43"	1	4	Navy yard, Boston.	do.	Navy Department to Bureau, June, 18, 1864.
Do.	do.	do.	New York.	50" x 43"	2	4	Navy yard, New York.	do.	Navy Department to Bureau, Oct. 3, 1864.
Swatara.	do.	Third.	Portsmouth.	36" x 36"	1	4	Navy yard, Portsmouth.	do.	Navy Department to Bureau, Nov. 21, 1864.
Do.	do.	do.	Washington.	36" x 48"	1	4	Navy yard, Washington.	do.	Navy Department to Bureau, Mar. 25, 1864.
Double-ender.	Peoria.	do.	Portsmouth.	58" x 8' 9"	2	2	New York.	do.	Hull of vessel sold.
Do.	Isoco.	do.	New York.	58" x 8' 9"	1	2	Boston.	do.	Do.
Do.	Octorora.	do.	do.	41" x 7' 4"	1	2	New York.	do.	Do.
Do.	Chico, &c.	do.	Washington.	58" x 8' 9"	1	2	Boston.	do.	Do.
Do.	Agawam.	do.	Norfolk.	58" x 8' 9"	1	2	Portland.	do.	Do.
Double-turret iron-clad.	Pasconaway.	First.	Portsmouth.	46 1/2" x 50"	2	8	Boston.	John Baird.	Navy Department to Bureau, Jan. 8, 1867.
Do.	Quineganoum.	do.	Boston.	46 1/2" x 50"	2	8	do.	do.	Do.
Do.	Kalamazoo.	do.	New York.	46 1/2" x 50"	2	8	New York.	do.	Do.
Do.	Shakamaxon.	do.	Philadelphia.	46 1/2" x 50"	2	8	do.	do.	Do.

Tabular statement of the number of spare boilers stored in the various navy yards, showing name or class of vessel for which intended, &c.

Name or class of vessel.	Rate.	In what navy yard stored.	Number of boilers.	For what sized engine designed.	Remarks.
Moshulu class....	First...	Washington..	4	60" x 36"	The engines for which these boilers were built were placed in the Richmond.
San Jacinto.....	Second.	New York....	2	.....	Vessel was lost. Boilers new. Superheaters in uptake.
Paul Jones class..	Fourth.	New York....	4	44" x 7'-0"	Boilers new. Superheaters in uptake. Will answer for screw gunboat of fourth rate.
Pocahontas.....	do....	Boston.....	2	.....	Boiler new. Vessel sold.
Swatara class....	do....	Portsmouth...	4	36" x 36"	Boilers built for Alert. Separate superheaters.
Small gunboats....	do....	New York....	8	30" x 18"	Superheaters in uptake.
Do.....	do....	Boston.....	2	30" x 18"	Superheaters in uptake.

In addition to the above there are two boilers at the navy yards at Portsmouth, Boston, New York, and Philadelphia, built for, but not to be used in, the large iron-clads of the Kalamazoo class.

REPORT OF A BOARD OF NAVAL OFFICERS ON THE SUBJECT OF NAVY PENSIONS.

WASHINGTON, D. C., *November 29, 1869.*

The law of April 12, 1800, organizing the navy of the United States, provided "that all money accruing or already accrued to the United States from the sales of prizes shall be and forever remain for the payment of pensions and half-pay to officers, seamen, and marines entitled to receive the same; pledged the public faith to make up any deficiency, and devoted the surplus, if any, for the making of further provision for the comfort of the disabled officers, seamen, and marines, and of others not disabled." This law also provided that the amount of disability pensions should not exceed one-half the monthly pay of the disabled person.

Pensions payable from the navy pension fund were first granted to the widows or orphans of officers of the navy, or marines killed or dying by reason of wounds received in the line of duty, by the law of January 20, 1813, and the amount of each pension was to be the half-pay of the person killed or dying from wounds.

The wives and children of seamen and marines were included as pensioners on the naval pension fund at half the pay of the person killed or wounded fatally in the line of duty, by the law of March 4, 1814, and by this law all pensions were made retroactive so far back as to the 18th June, 1812. The duration of all pensions was limited to five years.

These laws, without material modification, remained in operation until 1837, the pensions being extended by legislation at the expiration of every five years.

The pension fund increasing under the restrictions of the laws above quoted, brought up the question as to the disposition of the surplus, and the liberal view was adopted of extending its benefits to the widows and orphans of persons dying while in the naval service, without regard to the mode of death.

Accordingly the law of March 3, 1837, was enacted, which granted pensions without reserve to the widows (during life or until intermarriage) and to the orphans (during minority) of officers, seamen, and marines, whose husbands or fathers have died or may hereafter die in the naval service.

This equitable provision, made twenty-two years after the accumulation of the naval pension fund, came almost too late for the general comfort of the widows and orphans of those whose services had created it; nor were its benefits long enjoyed, as the law was repealed in August, 1842, owing to the exhaustion of the fund from causes not within naval control.

Subsequent laws, requiring appropriations from the treasury, were passed from time to time, greatly restricting the cases in which pensions could be granted and limiting the terms for which they were to endure, to the distress of many destitute widows and orphans, until the breaking out of the late rebellion, and the creation of a new prize fund by naval captures, rendered the passage of a more general pension law desirable.

Accordingly the act of July 14, 1862, was passed, and under this law and the regulations in respect to it, provisions are now granted for disability incurred while in the line of duty to persons in the naval service, and to the widows, children, and dependent mothers or sisters of persons in the navy, who have died since March 4, 1861, or shall hereafter die by reason of wounds received or of disease contracted while in the service of the United States and in the line of duty.

This law of July 14, 1862, fixed the rate for total disability at a scale that is very remote from the half-pay standard of the law of 1800; and makes that scale the allowance for the pensions of widows, orphans, and dependent mothers or sisters.

While not disposed to lay much stress upon the low rate of the disability pensions, the board thinks that every effort should be made to have the pensions for widows, orphans, and dependent mothers or sisters fixed upon a scale commensurate to the amount of the pension fund and upon the rate of present half-pay, as was adopted by the earliest pension laws.

But the restrictions of the act of July 14, 1862, are greatly increased by the second section of the act of July 27, 1868, which makes it impossible for pensions to inure to the widows, orphans, dependent mothers or sisters of persons dying in the line of duty in the naval service, unless the name of the husband, father, son, or brother, was borne upon the books of some ship or other vessel of the United States, at sea, or in harbor, actually in commission, or unless he was on his way by direction of competent authority to the United States, or to some other vessel or station, at the time of receiving wounds or contracting disease.

The operation of this law is most unequal, and defeats the universally benevolent intention which is supposed to govern all pension systems.

Deaths, wounds, injuries, or disease occurring in the line of duty on board of a receiving ship made fast alongside a navy yard will make cases for pension, because the names of her officers and crew are borne upon her books. The same causes occurring in the navy yard will not entitle to any claim for pensions, because the names of officers and men are not borne on any ship's books.

Nor can claims for pensions arise elsewhere, or on shore, unless the person injured or deceased is on his travels by order of competent authority to some ship or station, or to the United States from abroad by sea, in which case or cases, pensions may inure without reference to

a ship's books. On arriving at a station to be employed thereat on duty, the benefit of pensions cease so long as thus employed.

One way, and the board suppose it to be a legal one, to equalize the working of this law, would be to cause the names of all officers and enlisted men to be at all times borne on the books of some ship, receiving or other class.

The law itself could be equitably amended by adding to its final clause the words "or was otherwise on duty, by direction of competent authority," which would include all cases of death, wounds, injuries or diseases that could ensue in the line of duty.

But even with this amendment, which would accomplish much, the naval pension law would still remain shorn of the general and generous provisions of the law of 1837. The re-enactment of that law, basing the amount of pension upon the present rates of half-pay, is recommended by the board to establish once more a just distribution of the pension fund, or of a portion of it, and to provide adequately for the support and comfort of those persons for whose benefit the fund was created.

The amount of naval pension fund December 31, 1868, according to the report of the late Secretary of the Navy, was fourteen millions of dollars; all of it having accrued during the late rebellion from the sale of prizes captured by naval vessels.

The entire fund was invested according to the provisions of the law of July 1, 1864, which directed the Secretary of the Navy, as trustee of the naval pension fund, to invest it in the registered securities of the United States, subject to his order, for the purpose of such immediate investment, and which directed further that the interest, payable in coin, shall be so paid, when due, to the order of the Secretary of the Navy, to be exchanged, when paid in coin, for so much of the legal currency of the United States as may be obtained therefor at the current rates of premiums on gold, and deposited, when so converted, in the treasury of the United States, to the credit of the naval pension fund.

The income arising from fourteen millions of dollars thus invested would be large enough to provide sufficient pensions for the widows, orphans, and dependent mothers or sisters of persons dying in the naval service, without regard to the mode of death, to provide for the disability pensions and to leave a surplus. A portion of this surplus, or all of it, if required, might be used in fulfilling the letter, as well as the spirit, of the laws of 1800 and 1862, by making further provision for the comfort of the disabled officers and seamen, by procuring a large tract of land on the shores of one of our navigable salt water bays, in sight of shipping, whereon to erect a sailors' home among surroundings that a seaman can enjoy.

But most unexpectedly to the naval service, and most certainly not in harmony with the public faith, the law of July 1, 1864, was repealed by that of July 23, 1868, which reduced the interest on the government bonds belonging to the pension fund, from six per cent. gold to three per cent. currency.

The bonds owned by the naval pension fund are not therefore allowed even one-half the interest pledged on their face, and the fund itself is placed on a different footing from all other holders of bonds of the United States.

The board feel that it expresses the common hope of the service in stating its belief that the faith of the government, so often pledged to maintain the naval pension fund in its integrity, will be fully redeemed

by Congress in the re-enactment of the law of July 1, 1864, and in the repeal of the law of 1868, (July 23.)

As matters now stand the income of the fund barely pays the present limited and meager pensions, as will appear from the exhibit as stated in the report of the Secretary of the Navy for December, 1868 :

Naval pension fund now invested in United States bonds..	\$14, 000, 000
Interest on the same, at 3 per cent.....	420, 000
Amount of pensions for 1868	374, 234
Surplus for 1868.....	45, 745

Appended is a table of pensions prior to 1862, subsequent to 1862, and as now proposed in 1869, for widows, orphans, &c.:

Naval pensions per month.

Prior to 1862.		Since 1862.		Proposed in 1869.	
Have no pensions.....				Admiral.....	\$400 00
				Vice-admiral.....	200 00
				Rear-admirals.....	125 00
				Commodores.....	100 00
Captains.....	\$50 00	Captains.....	\$30 00	Captains.....	90 00
Commanders.....	30 00	Commanders.....	30 00	Commanders.....	70 00
Lieutenant commanders.....	30 00	Lieutenant commanders.....	30 00	Lieutenant commanders.....	62 50
Lieutenants.....	25 00	Lieutenants.....	25 00	Lieutenants.....	50 00
Masters.....	20 00	Masters.....	20 00	Masters.....	40 00
Passed midshipmen.....	12 50	Passed midshipmen.....	10 00	Ensigns.....	32 00
Midshipmen.....	9 50	Midshipmen.....	10 00	Midshipmen and forward officers.....	30 00
Petty officers and seamen.....	{ 9 50 9 00 6 00	{ Petty officers and all other ratings.....	8 00	Petty officers and other ratings.....	20 00

This law of July, 1862, does not provide for pensions to the widows, orphans, dependent mothers or sisters of officers above the rank of captain.

The scale it establishes is not equal to the pension rates of fifty years ago, and is by no means commensurate with the amount of the pension fund, or adequate for the support of the pensioners.

The board finally recommend a return to the practice of former times, in deciding in the first instance upon claims for pensions as provided in the pension law for April 10, 1806.

The provisions of that law required the affidavit of the commanding officer of any ship, vessel or craft to prove the fact of wounds received while in actual service against the enemy, or of two other "credible witnesses," and "the nature of a disability and its degree to be proved by the affidavit of some respectable physician or surgeon."

Under existing regulations a medical certificate determines the question upon which naval pensions are to be issued, either in cases of death, wounds, injuries, or disease, and medical authority decides whether or not these incidents occurred while in the line of duty.

Death is suffered, wounds and injuries are received, and disease is incurred, by persons in the naval service while under the command of some military superior, in the line of duty; and it appears to the board that it is not only eminently appropriate, so far as circumstances are concerned, but that it is absolutely requisite, in order to present a proper statement of each case from the beginning, that commanding officers should be required by law to furnish certificates in all cases of persons killed in battle, or wounded, injured, disabled, or dying from disease while in the naval service, so as to exhibit, in the first instance, a case

for pension, either on the part of widows, orphans, dependent mothers or sisters, if any such, or on the part of wounded or disabled officers or men; and that a medical certificate should be required to establish the nature and degree of a disability, and to furnish a professional history of cases of disease.

If any case should arise in which the certificate of a commanding officer cannot be had, then the Secretary of the Navy should decide on the claim.

WM. REYNOLDS,
Captain and Senior Member.
K. R. BREESE,
Commander United States Navy.
JAMES W. SHIRK,
Commander.

FIRST REPORT ON AN INTER-OCEANIC CANAL.

CAMBRIDGE, MASS., *September 30, 1869.*

SIR: In pursuance of the instructions of the department of the 10th ultimo, I have the honor to submit this, the first of a series of reports on the exploration of the American isthmus.

The subject of this report is the base of operations.

I have pointed out in a former paper that the part of the American isthmus concerning which our knowledge is the most imperfect, is the range of the Cordillera embraced in the Spanish province of Darien; and I have said that it is precisely here that we are first to look for the solution of the great problem of an inter-oceanic canal.

The reasons for this opinion, and the authorities by which it is supported, have already been given; they will be repeated and extended in the communication giving in detail the plan of the first operations on the land.

In the province of Darien the mountain range presses close upon the northern shore, and may be entered by a few hours' travel from the beach. If the working parties are transported in an armed vessel, amply provided with provisions, instruments and the means of self-protection, they will have the base of their operations so near at hand that an uninterrupted communication may be maintained, and all required aid in the way of supplies and re-enforcements can be conveniently furnished in a very short time.

These considerations are of the highest importance on the following accounts:

First. The well known unfriendly character of the aboriginal inhabitants of the Cordillera.

Second. Our very ignorance of the ground, which, notwithstanding the valuable surveys of Ariza and Reimon, and the journals of Milla, renders our first efforts somewhat tentative, and requires that the first reconnaissance shall be comprehensive.

Third. Because if the parties were landed on the southern side, in the Gulf of S. Miguel, they would be obliged to carry a burdensome supply of provisions for their support, and to traverse a plain twenty miles in extent before arriving at the foot of the Cordillera; I will not consume the time of the department by supplying examples to enforce these views, unless called upon to do so.

The navy vessel which I propose to employ is a side-wheel steamer,

like the Gettysburg, for example; or, even the Susquehanna. The latter vessel would by no means be disproportionate in size to the magnitude of our conception, if this enterprise, of which we are now only at the humble beginning, should result in covering both shores of the isthmus with fleets of vessels, and in peopling the land with large colonies of surveyors, engineers, and laborers.

If the department should assign a vessel for this service, I am prepared to propose a suitable plan of equipment and general outfit. This subject I will reserve for a special communication.

Very respectfully, your obedient servant,

C. H. DAVIS,

Rear-Admiral United States Navy.

Hon. GEO. M. ROBESON,

Secretary of the Navy, Washington, D. C.

CAPTURE OF NEW ORLEANS.

(SUPPLEMENTAL REPORT.)

WASHINGTON, D. C., May 25, 1869.

SIR: I have the honor to inclose herewith original and certified copies of a correspondence which I have had with Admiral D. G. Farragut relating to the battle below New Orleans, and to request that the letters marked from A to E be placed on the files of the Navy Department as furnishing a correction of that officer's report, with an accompanying diagram, heretofore made to the department.

The object of my addressing Admiral Farragut is now gained, by the admission on his part of the correctness of my statements, that the fleet under his command went up the Mississippi River to attack and pass Forts Jackson and St. Philip in order of battle "line ahead," or single file; that I led the fleet into the battle at the head of and in command of the vanguard division; and that the Hartford, flag-ship, with Admiral Farragut on board, followed my division, he being thus ninth in line, and at the head of the rest of the fleet in the order represented by the list of vessels which I hereto annex.

After this frank admission now made by my distinguished commander, I have only the regret remaining that the error into which he was led was not discovered and corrected at an earlier date, thereby possibly affecting my position in the service.

I have the honor to be, respectfully, your obedient servant,

THEODORUS BAILEY,

Rear-Admiral United States Navy.

Hon. A. E. BORIE,

Secretary of the Navy.

A.

WASHINGTON, D. C., April 1, 1869.

MY DEAR ADMIRAL: I feel compelled to call your attention to an oversight of which I spoke to you some time since, and which has afforded me and other officers the keenest annoyance, by historical statements growing out of an omission to make the desired correction.

You recollect that when the Colorado, under my command, was found (after lightening her) to draw too much water to be got over the bar

into the Mississippi River, I applied to you for the command of a division of gunboats, and coveted the honor of leading, under your orders, the attack on New Orleans and its defenses. Having been assigned by you to the command of a division of your fleet, with your concurrence and at the request of Commander S. P. Lee, I hoisted my divisional flag on board the steam sloop-of-war Oneida, commanded by him. On the 20th of April, 1862, you issued a general order with the programme directing the fleet to pass the forts and ascend the river in two columns abreast—you in your flag-ship, the Hartford, at the head of one column, and I at the head of the other.

About this time Commander Lee expressed a regret that he had invited me to lead my division in his vessel, the Oneida, alleging as a reason that I would get the credit for what might be achieved by his vessel. Lieutenant Commanding Harrison immediately begged me to hoist my divisional flag on board of his little gunboat, the Cayuga, and give him a chance to lead the division, which, on going on board of your flag-ship and stating the facts, you kindly consented to my doing, and in giving the gallant Harrison the opportunity he sought, the Oneida, Commander Lee, was assigned a position further astern.

After the chain and booms constituting the enemy's obstructions were cut by Captain Bell and Lieutenant Caldwell, it became apparent that if the fleet went up in two columns abreast according to your written order and programme of the 20th of April, the parallel columns of vessels would likely get foul of the obstructions on either side, and the whole fleet hove into confusion under the fire of the enemy's forts, especially as you had determined to make a night attack (two o'clock in the morning.) Therefore, with your proverbial foresight and sagacity, you ordered me to get my division of eight vessels under way as soon as the dusk of the evening should obscure the movement from the enemy and anchor them (line ahead) near the east bank, and gave me a further verbal order directing me that when the signal should be made (two red lights) from the Hartford, to lead up with my division, and to receive but not answer the fire of Fort Jackson, (which I was directed to leave for you to take care of when you should come up—as you expressed it, "I will take care of Fort Jackson.") I was then to open on Fort St. Philip and pass it, but you directed that in case at any time you should come up in the Hartford, we should leave room for you on the port or west side. I accordingly passed up at the head of my division, (in the Cayuga,) receiving but not returning the fire of Fort Jackson. After passing the obstructions I ordered the helm put apart and led close to the levee and under the guns of Fort St. Philip, thinking that the guns of that fort would be trained for mid-river, and that they would consequently overshoot me, (which they did, their shot and shell riddling our masts, spars, sails, and rigging, with comparatively little damage to the hulls.) At this time something occurred to the Pensacola's machinery, which caused a detention of the vessels of my division astern of her; losing sight of them, we in the Cayuga alone encountered the rebel iron-clads Louisiana and Manassas and their flotilla of gunboats, and maintained unaided a conflict with the gunboats until Boggs, of the Varuna, came up, and after delivering a broadside, which came into the Cayuga instead of the enemy in conflict with us, he passed up the river out of sight. The Oneida, Commander Lee, came up soon after and fired into a steamer that had already surrendered to us of the Cayuga, (being her third prize.) I then ordered Lee to go to the assistance of Boggs, of the Varuna, then engaged with two of the enemy's steamers up the river, which had been drawn off from their attack on us of the Cayuga, to follow and head off Boggs, of the Varuna. After

seeing our Cayuga's third prize in flames we steamed up the river and captured the Chalmette regiment encamped on the west bank of the river opposite the quarantine hospital. This rebel regiment of infantry I had the honor to hand over to you for your disposition when you came up the river after your severe contest with the forts and fire-ships below.

To give a history of all the incidents of the battle within my observation, or the part which each vessel of my division took, would make this communication too long.

The great object of this letter is to call your attention to the fact that in the hurry of making up your dispatches after the battle, you sent home the written order of the 20th of April, which has been published and has passed into history, instead of your verbal order of the 23d, which was the one in accordance with which the fleet passed up the river and the battle was fought.

This error has resulted in an inextricable historical muddle, as the history of the battle has been written on the basis of the published programme of April 20, never carried out; the formation and position of the attacking force is therefore entirely misunderstood by the historians; one (Rev. Mr. Boynton's) history not even mentioning my name, although it did those of officers commanding vessels under me. My name was merely inserted as commanding a division at the instance of a friend, who discovered the omission too late to make a further correction. The resolution of the United States Senate of June 6, 1862, of which three thousand copies were ordered to be printed, perpetuates the error of our passing the forts in two columns abreast. Mr. Greeley, in his "American Conflict," and other authors, are led into the same misstatements. Lossing's Pictorial History erroneously describes the Cayuga as retiring from the fight on account of her damages, whereas she was continually in action, notwithstanding she was much cut up with forty-two shot holes. The Varuna, which had passed us while heavily engaged, went up the river and drew off three of the Cayuga's assailants, the fight of the Varuna with two of which is treated as the great event of the battle, while the leading up and heavy single-hand fighting of the Cayuga, (Harrison's gunboat,) her taking the surrender of three enemy's steamers, the Chalmette regiment of infantry, and cutting the telegraphic communication between the forts and New Orleans, and other circumstances, are not mentioned.

Now as I do not wish to be compelled, even in justice to myself or the officers of my division, to go into the system of correcting history by pamphleteering or newspaper articles, now so common, I must ask of you to correct this error, which I know you will not hesitate to do, seeing how much annoyance it is giving your friends and followers; or if you still have any delicacy in doing this, as you appeared to have when I spoke to you before, in consequence of a regulation of the department that you seemed to consider in the way, may I ask if you see any impropriety in my requesting a board of inquiry, in order to get the facts on record, since the truth of history, my duty to my officers and to my family, requires that I should see it done while I am here to do it.

I have the honor to be, very respectfully, your obedient servant,

THEODORUS BAILEY,

Rear-Admiral U. S. Navy.

Admiral D. G. FARRAGUT, *U. S. Navy.*

A true copy :

THEODORUS BAILEY,

Rear-Admiral U. S. Navy.

B.

NEW YORK, *April 3, 1869.*

MY DEAR ADMIRAL: I have received your letter of the 1st, and am really at a loss to understand how you, or even historians, can take the views you express in relation to the part in the memorable fight in the Mississippi in 1862.

I have just re-read my report of May 6, and your *two* reports following, and cannot conceive how you could be more prominently mentioned to the department.

In the former you are reported as "leading the right column in the gunboat Cayuga," as having "preceded me up to the quarantine station," and as having "captured the Chalmette regiment," and every possible credit is given you for the manner in which you conducted your line, and preceding us to attack the Chalmette forts.

As to historians, I can of course do nothing. I have read but one account to which you allude, (Dr. Boynton's,) and that in reference to Mobile Bay, in which several mistakes occur, going to prove that historians are not always correct.

I do not see how it is possible for me to give you greater credit for your services than is embodied in that report where your name is always prominent; but if you think that full justice has not been done you, which I confess I regret to learn, you have of course a perfect right to make your appeal to the department; for my own part I always maintain the conviction that whatever errors may be made in the records of historians and others, posterity will always give justice to whom justice is due.

Very truly, yours,

D. G. FARRAGUT, *Admiral.*

Rear-Admiral T. BAILEY,
United States Navy.

P. S.—By referring to pages 334, 335, and 337 of Draper's History, you will find that he gives you all the credit claimed by your own report, as well as that given you by mine.

D. G. F.

C.

WASHINGTON, D. C., *April 27, 1869.*

MY DEAR ADMIRAL: I have received and carefully read your letter of the 3d, in reply to mine of the 1st instant, and admit all you say about prominently mentioning my name to the department. But you remark, "As to historians I can of course do nothing." This is so; but the difficulty is that the historians derived their erroneous account of the battle from your report of the 6th of May, 1862, and from the diagram which you sent to the department as the true order of sailing into the battle with the forts. Those who have written on the subject are not to be blamed for using the official reports of the occurrences, but in seeking for the correction of that report I hope to prevent similar error and confusion in the future. I do so with the greatest reluctance as a duty to the officers under my immediate command, and to myself, and I appeal to your sense of justice whether I could do less.

You state, "I have just re-read my (your) report of May 6, and your (my) two reports following, and cannot conceive how you could be more

prominently mentioned to the department. In the former you are reported as leading the right column in the gunboat Cayuga, and as having preceded me to the quarantine station."

How could there have been a "right" and a left column practically, when I led my division to the attack, and passage of the forts, an hour before you lifted anchors in the Hartford and your center division? What I did was done by your orders and inspiration, and to you the world has given the credit of the attack and success as fully as it gave to Lord Nelson the credit of the battle of the Nile, but did it detract from his glory that the report of the battle *described how it was fought*, and the exact position of his own vessel and those of his subordinates?

This matter has been the subject of much discussion among officers then commanding vessels *in my division*—all say that no vessel of your center division came up abreast of or lapped their vessels.

Practically the effect of your verbal order was to divide the fleet into four divisions, viz :

First. The mortar fleet, (Commander Porter.)

Second. The first division of gunboats, (under my command,) to which was added the two sloops of war, Pensacola and Mississippi, of which the gunboat Cayuga, with my divisional flag, was the leading vessel.

Third. The center division, with your flag on the Hartford; and

Fourth. The rear division bearing the flag of Captain H. H. Bell.

The first, center, and rear divisions went up to the attack in single file, or line ahead; I went up at the head of my division at 2 a. m., or as soon thereafter as it took the Pensacola (the next vessel astern of the Cayuga) to purchase her anchors—supposed to be about twenty minutes. You followed without lapping the sternmost vessel of my division, and the division of gunboats commanded by Captain Bell followed in the wake of your division. The fact, practically, was that the first division, the mortar fleet, covered the advance; the second was the vanguard, the third the main body of the fleet, and the fourth the rear, and that the advance being made up a river and line ahead, the diagram does not give any idea of the action, other than to produce confusion and error. How could it be otherwise when no vessel of the third division lapped any one of the second?

I inclose a copy of this (to us) unfortunate diagram, as attached to your report of the battle, which you will notice places the Cayuga (my flag gunboat) third in line of my division—whereas, according to your own statement, (of two columns abreast,) that gunboat should have been recorded as first in line, leading. I would ask of your friendship and your fairness whether this diagram gives the faintest idea of the action, and whether, if the names of the vessels were altered, it would not apply equally well or better to many other battles.

ORDER OF FLEET.

Second division gunboats, Captain Bell commanding.

First division of ships.

0 Winona,
Lt. Com'g Nichols.
0 Itasca,
Lt. Com'g Caldwell.
0 Pinola,
Lt. Com'g Crosby.
0 Kennebec,
Lt. Com'g Russell.
0 Iroquois,
Commander DeCamp
0 Sciota,
Lt. Com'g Donaldson.

0 Richmond,
Commander Alden.
0 Brooklyn,
Captain Craven.
0 Hartford,
Com'der Wainwright.

*First division gunboats, Captain Bailey commanding.**Second division of ships.*0 Wisconsin,
Lt. Com'g A. Smith.0 Kineo,
Lt. Com'g Ransom.0 Katahdin,
Lt. Com'g Preble.0 Varuna,
Commander Bogg.0 Oneida,
Commander Lee.0 Cayuga,
Lt. Com'g Harrison.0 Mississippi,
Commander M. Smith.0 Pensacola,
Captain Morris.

As an evidence how far the Cayuga was ahead of the rest of the fleet, the first news received at the North is announced in the New York Times of Sunday, April 24, 1862, thus :

An important report from the rebels.—One of our gunboats above Forts Jackson and San Philip.

WASHINGTON, Saturday, April 26.

The Richmond Examiner of the 25th announces that one of our gunboats passed Forts Jackson and San Philip, sixty miles below New Orleans, on the 24th. The report was telegraphed to Norfolk and brought to Fortress Monroe under flag of truce, and received from there to-day by the Navy Department.

The next rebel telegram announced the arrival of the fleet before the city. The Cayuga in the interval had captured the Chalmette regiment, five miles above the forts, and cut the telegraphic communication, so that the fleet were not again reported until they arrived opposite the city.

Now, my dear admiral, you have entirely misconceived the object of my addressing you. It is not to complain that you have not mentioned me prominently in your dispatch, but it is because in your report of the battle, dated May 6, and the accompanying diagram, you do not give the circumstances of the fight as they occurred, but those which would apply to your former plan, which was abandoned. From that report the reader would infer that the fleet went to the attack of the forts in two columns abreast, when it was done in single column, (line ahead.) That the Hartford was the leading vessel, when in reality it was the ninth in line astern of the Cayuga, in a single line or line ahead, and there was no left nor right of line, but single file.

That you should for a moment leave so erroneous a report or record uncorrected is a matter of surprise to your officers, and that you should not have made the correction as soon as your attention was called to it is still more embarrassing to us.

They know that under your orders I led the vanguard of the fleet, not as represented on the diagram you have filed, but in an entirely different order, and received forty-two certificates in the way of rebel shots striking my vessel, in corroboration of what is known to every one of our gallant companions in that engagement.

I have delayed my reply both because I have been occupied and since have heard that you were ill, which I deeply regretted, and because I wished to be certain that I said nothing in haste that would be annoying to you or improper in me to say, and I hope you will now see the matter as I and others do, and make the correction so necessary to justice in your report of May 6, 1862, and substitute a diagram of the ac-

tual positions your vessels and officers occupied in the line of attack, in place of those now in the files of the Navy Department.

I have the honor to be, respectfully, your obedient servant,
THEODORUS BAILEY,
Rear-Admiral.

Admiral D. G. FARRAGUT,
United States Navy.

MAY 22, 1869.

I certify that the foregoing is a true copy of the original, made by me this day.

BEN. M. PLUMB.

D.

NEW YORK, May 19, 1869.

MY DEAR ADMIRAL: I have received your two letters, the first one of which was not given to me until to-day, as my physician has advised a total suspension of business until I should become fully convalescent, which I am happy to say is now the case.

It affords me pleasure to make the correction you desire in the diagram of the Mississippi battle, as I now fully comprehend what you wish in this matter.

In fact, I cannot understand how this sketch of the first proposed order of battle, wherein you are placed *third* instead of at the head of the column, should have been attached to the report in lieu of the one which was afterwards adopted.

By referring to this report, you will observe that the diagram accompanies a general order issued four days before the action as a preparatory plan of attack, which was subsequently changed; but still I cannot understand why even in this sketch you should not have been placed at the head of the starboard column.

This diagram, as you are aware, was the original plan, to be changed as a matter of course as circumstances might justify, and the vessels were placed according to the rank of the officers respectively commanding them; but should not have been made part of the report of the final action, as on reflection I decided that when the chains were parted, the plan of "line ahead" should be adopted as the best calculated for the preservation of the vessels and for avoiding all chances of fouling. Therefore when the time arrived and the signal given, the order of sailing was changed to line of battle, the verbal instructions to which you allude carried out, and you led at the head of your division; and it has always afforded me the greatest pleasure to say that you performed your duties most fearlessly and gallantly.

For this reason I was at the outset a little surprised that you should have apparently complained of my report; but my examination of the printed diagram has fully satisfied me of the justice of your appeal.

I shall therefore forward to the department a correct sketch of the final attack as we passed up the river.

I am, very truly, your friend and obedient servant,

D. G. FARRAGUT,
Admiral United States Navy.

Rear-Admiral T. BAILEY, *Washington.*

E.

Order of the fleet on the morning of the 24th of April, 1862, 2 o'clock a. m., on proceeding up to the attack and passage of Forts Jackson and St. Philip.

THE FIRST AND LEADING DIVISION UNDER THE COMMAND OF CAPTAIN THEODORUS BAILEY, AS FOLLOWS :

[*Distinguishing penants, red.*]

- 0 Cayuga, divisional flag-gunboat, Lieutenant Commander N. B. Harrison.
- 0 Pensacola, Captain H. W. Morris.
- 0 Mississippi, Captain M. Smith.
- 0 Oneida, Commander S. P. Lee.
- 0 Varna, Commander Charles S. Boggs.
- 0 Katahdin, Lieutenant Commanding G. H. Preble.
- 0 Kineo, Lieutenant Commanding Ransom.
- 0 Wissahickon, Lieutenant Commanding A. N. Smith.

CENTER DIVISION, ADMIRAL FARRAGUT, FOLLOWING :

[*Distinguishing penants, blue.*]

- 0 Hartford, Commander Wainwright.
- 0 Brooklyn, Captain T. T. Craven.
- 0 Richmond, Commander James Alden.

THIRD DIVISION, FOLLOWING UNDER COMMAND OF CAPTAIN H. H. BELL :

[*Distinguishing penants, red and white.*]

- 0 Sciota, divisional flag-gunboat, Lieutenant Commanding Donaldson.
- 0 Iroquois, Commander DeCamp.
- 0 Kennebec, Lieutenant Commanding Russell.
- 0 Pinola, Lieutenant Commanding P. Crosby.
- 0 Itasca, Lieutenant Commanding Caldwell.
- 0 Winona, Lieutenant Commanding Nichols.

The mortar fleet, under Commander Porter, remained below the forts to operate from that direction; also the sloop of war Portsmouth, Commander S. Swartwout.

Attest :

THEODORUS BAILEY,
Rear-Admiral.

NEW YORK, May 24, 1869.

SIR: My attention having been called by Rear-Admiral Bailey to an incorrect sketch which accompanied my report of May 6, 1862, upon the passage of Forts Jackson and St. Philip, I have the honor to forward herewith a corrected diagram, showing the position of the vessels at the time they passed through the obstructions after the chains had been separated. This will demonstrate that Rear-Admiral, then Captain Bailey, led the fleet in the Cayuga up to the attack on the forts, as had been previously ordered—he taking St. Philip with his division, while I reserved Jackson for the remainder of the squadron under my command.

The skeleton lines show how the vessels moved up from the original position of two lines into the line ahead.

This correction has not been made before, because I was not aware of the existence of the mistake—the diagram being evidently a clerical error, and in opposition to the text in which I distinctly state that Rear-

Admiral Bailey not only led, but performed his duty with great gallantry, to which I called the attention of the department.

Very respectfully, your obedient servant,

D. G. FARRAGUT,
Admiral United States Navy.

Hon. A. E. BORIE,
Secretary of the Navy, Washington.

*Order of the fleet in passing up to the attack of Forts Jackson and St. Philip,
April 24, 1862.*

FIRST DIVISION LEADING UNDER COMMAND OF CAPTAIN THEODORUS BAILEY.



- 0 Cayuga, Lt. Com. Harrison, Flag Gunboat.
0 Pensacola, Capt. H. W. Morris.
0 Mississippi, Capt. M. Smith.
0 Oneida, Comdr. S. P. Lee.
0 Varuna, Comdr. C. S. Boggs.
0 Katahdin, Lt. Com. G. H. Freble.
0 Kineo, Lt. Com. Ransom.
0 Wassahickon, Lt. Com. A. N. Smith.

CENTRE DIVISION—ADMIRAL FARRAGUT.

CENT
Hartford, Com. Wainwright.
Brooklyn, Capt. T. T. Craven.
Richmond, Com. J. Alden.



THIRD DIVISION—CAPT. H. H. BELL.

- Seetha, Lt. Com. Donaldson.
Iroquois, Com. DeCamp.
Kennebec, Lt. Com. Russell.
Pinola, Lt. Com. P. Crosby.
Itasca, Lt. Com. Caldwell.
Winona, Lt. Com. Nichols.

Obstructions	Original position of Captain Bailey's division in line abreast
0	7.0
2	6.5
4	6.0
6	5.5
8	5.0
10	4.5

Very respectfully,

D. G. FARRAGUT, Admiral.

[The following papers accompanying the report of the Chief of the Bureau of Yards and Docks, to the Secretary of the Navy, were inadvertently omitted from their proper place on page 78, report of the Secretary of the Navy:]

Schedule of papers accompanying the report of the Chief of the Bureau of Yards and Docks, to the Secretary of the Navy, dated October 1, 1869.

A.—General estimates for yards and docks.

No. 1.—Estimates for the support of the bureau.

No. 2.—Estimates for officers and others at yards and stations.

No. 3.—Statement showing the sums which make up the first item in Y. & D.—A.

No. 4.—Estimates for improvements and repairs at yards and stations.

No. 5.—Estimates for repairs of all kinds, showing the sums which make up the amounts in Y. & D.—No. 4.

No. 6.—Statement of expenditures under the head of contingent, during the fiscal year ending June 30, 1869, and estimates for the same, for the fiscal year ending June 30, 1871.

No. 7.—Estimates of appropriations under the cognizance of the Bureau of Yards and Docks, required for service of the fiscal year ending June 30, 1871.

No. 8.—Abstract of orders for supplies for the fiscal year ending June 30, 1870.

BUREAU OF YARDS AND DOCKS, October 1, 1869.

Y. & D.—A.

General estimate of the Bureau of Yards and Docks for the fiscal year ending June 30, 1871, in addition to the balances remaining unexpended July 1, 1870.

	Estimated for the year ending June 30, 1871.	Estimated for the year ending June 30, 1870.
For the pay of civil engineers, and all the civil establishments of the several navy yards and Naval Asylum, (see Y. & D.—No. 3)	\$145,998 75	\$138,931 25
For the improvements and repairs at the several navy yards, stations, and Naval Asylum, (see Y. & D.—No. 4)	3,672,494 00	1,283,996 00
For contingent expenses that may accrue during the fiscal year, for the following purposes, viz: for freight and transportation of materials and stores for Bureau of Yards and Docks purposes; for printing, stationery, and advertising for Bureau of Yards and Docks purposes, including the commandant's office; for books, models, maps, and drawings for Bureau of Yards and Docks purposes; for purchase and repair of fire-engines; for machinery, and patent right to use the same, for Bureau of Yards and Docks purposes; for repairs on steam-engines, and attendance on the same, for Bureau of Yards and Docks purposes; for purchase and maintenance of oxen and horses, and driving teams; for carts and timber-wheels for navy-yard purposes, and tools and repairs of same, for Bureau of Yards and Docks purposes; for postage on letters on public service, and telegrams; for furniture for government houses and offices in navy yards; for coal and other fuel for Bureau of Yards and Docks purposes; for candles, oils, and gas, for Bureau of Yards and Docks purposes; for cleaning and clearing up yard, and care of buildings; for attendance on fires, lights, fire-engines and apparatus; for incidental labor at navy yards for Bureau of Yards and Docks purposes; for water-tax, and for tolls and ferriages, for Bureau of Yards and Docks purposes; for pay of the watchmen in the yard; for flags, awnings, and packing boxes for Bureau of Yards and Docks purposes, (see Y. & D.—No. 6)	1,091,000 00	1,173,500 00
Total	4,909,492 75	2,598,427 25

BUREAU OF YARDS AND DOCKS, October, 1869.

Y. & D.—No. 1.

Estimate of the amount required for the support of the Bureau of Yards and Docks for the year ending June 30, 1871.

For salary of the chief of the bureau, per act of August 31, 1842, section 3, (Statutes at Large, vol. 5, chap. 286, page 579)	\$3,500
For salary of civil engineer, per act of March 3, 1863, section 1, (Statutes at Large, pamphlet edition, chap. 118, page 818)	3,000
For salary of chief clerk, fourth class, per act July 5, 1862, section 3, (Statutes at Large, pamphlet edition, chap. 134, page 511)	1,800
For salaries of one clerk of class four, two clerks of class three, one clerk of class two, and one clerk of class one, per act of July 23, 1866, section 8, and March 2, 1867	7,600
For salary of draughtsman, per act of July 23, 1866, section 8, and March 2, 1867	1,800
For salary of messenger, per act of March 3, 1869	840

For wages of two laborers, one for bureau, the other for the office of engineer and draughtsman, per act of March 3, 1869.....	\$1,440
Total.....	19,980
For amount respectfully submitted as increase to salary of chief clerk.....	400
Total.....	20,380
Contingent expenses:	
For stationery, books, plans, drawings, and incidental labor.....	\$1,800

BUREAU OF YARDS AND DOCKS, *October 1, 1869.*

Y. & D.—No. 2.

Estimate of the pay of civil officers at navy yards and Naval Asylum for the fiscal year ending June 30, 1871.

PORTSMOUTH, N. H.

1 civil engineer.....	\$2,000
1 draughtsman to civil engineer.....	1,400
1 clerk to civil engineer.....	1,400
1 clerk of pay-rolls and mustering clerk.....	1,500
1 receiver and inspector of stores.....	1,500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk to commandant.....	1,500
1 clerk, second, to commandant.....	1,200
1 chief accountant.....	1,200
1 clerk to chief accountant.....	1,200
1 gate-keeper and detective.....	1,000
1 messenger for commandant's office.....	600
Total.....	16,039

BOSTON.

1 civil engineer.....	\$2,500
1 assistant civil engineer.....	1,500
1 draughtsman to civil engineer.....	1,400
1 clerk to civil engineer.....	1,400
1 clerk of pay-rolls and mustering clerk.....	1,500
1 receiver and inspector of stores.....	1,500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk to commandant.....	1,500
1 clerk, second, to commandant.....	1,200
1 clerk, third, to commandant.....	1,100
1 chief accountant.....	1,200
1 clerk to chief accountant.....	1,200
1 gate-keeper and detective.....	1,000
1 messenger for commandant's office.....	600
Total.....	19,039

NEW YORK.

1 civil engineer.....	\$2,500 00
1 assistant civil engineer.....	1,500 00
1 draughtsman to civil engineer.....	1,400 00
1 clerk to civil engineer.....	1,400 00
1 clerk of pay-rolls and mustering clerk.....	1,500 00
1 receiver and inspector of stores.....	1,500 00
1 writer to receiver and inspector, at \$3 per diem.....	939 00
1 clerk of pay-rolls and mustering clerk.....	1,500 00
1 clerk to commandant.....	1,200 00
1 clerk, second, to commandant.....	1,000 00
1 clerk, third, to commandant.....	1,800 00
1 chief accountant.....	1,200 00
1 clerk to chief accountant.....	1,200 00
1 gate-keeper and detective.....	1,000 00
1 mail carrier, at \$2 75 per diem.....	870 75
1 messenger for commandant's office.....	600 00
Total.....	19,899 75

PHILADELPHIA.

1 civil engineer.....	\$2,000
1 draughtsman to civil engineer.....	1,400
1 clerk to civil engineer.....	1,400

1 receiver and inspector of stores.....	\$1, 500
1 clerk of pay-rolls and mustering clerk.....	1, 500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk to commandant.....	1, 500
1 clerk, second, to commandant.....	1, 200
1 chief accountant.....	1, 800
1 clerk to chief accountant.....	1, 200
1 gate-keeper and detective.....	1, 000
1 messenger to commandant's office.....	600
Total.....	<u>16, 039</u>

NAVAL ASYLUM.

1 secretary to governor.....	\$1, 000
1 steward to the asylum.....	750
1 matron.....	300
6 washers, at \$120 each.....	720
1 cook.....	168
2 assistant cooks, one at \$120 and one at \$96.....	216
6 landresses, at \$120 each.....	720
8 scrubbers and house cleaners, at \$96 each.....	768
4 laborers, at \$240 each.....	960
1 master at arms.....	300
1 ship's corporal.....	240
Total.....	<u>6, 142</u>

WASHINGTON.

1 civil engineer.....	\$2, 000
1 draughtsman to civil engineer.....	1, 400
1 clerk to civil engineer.....	1, 400
1 receiver and inspector of stores.....	1, 500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk of pay-rolls and mustering clerk.....	1, 500
1 clerk to commandant.....	1, 500
1 clerk, second, to commandant.....	1, 200
1 chief accountant.....	1, 800
1 clerk to chief accountant.....	1, 200
1 gate-keeper and detective.....	1, 000
1 mail messenger.....	1, 000
1 messenger for commandant's office.....	600
Total.....	<u>17, 039</u>

NORFOLK.

1 civil engineer.....	\$2, 000
1 draughtsman to civil engineer.....	1, 400
1 clerk to civil engineer.....	1, 400
1 receiver and inspector of stores.....	1, 500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk of pay-rolls and mustering clerk.....	1, 500
1 clerk to commandant.....	1, 500
1 clerk, second, to commandant.....	1, 200
1 chief accountant.....	1, 800
1 clerk to chief accountant.....	1, 200
1 gate-keeper and detective.....	1, 000
1 messenger for commandant's office.....	600
Total.....	<u>16, 039</u>

PENSACOLA.

1 superintendent of yard improvements, at \$6 per diem.....	\$1, 878
1 draughtsman to superintendent.....	1, 400
1 clerk to superintendent.....	1, 400
1 receiver and inspector of stores.....	1, 500
1 writer to receiver and inspector, at \$3 per diem.....	939
1 clerk of pay-rolls and mustering clerk.....	1, 500
1 clerk to commandant.....	1, 500
1 clerk, second, to commandant.....	1, 200
1 chief accountant.....	1, 800
1 clerk to chief accountant.....	1, 200
1 gate-keeper and detective.....	1, 000
1 messenger for commandant's office.....	600
Total.....	<u>15, 917</u>

MARE ISLAND.

1 civil engineer.....	\$3.20
1 assistant civil engineer and draughtsman.....	1.80
1 clerk to civil engineer.....	1.50
1 receiver and inspector of stores.....	1.87
1 writer to receiver and inspector, at \$3 50 per diem.....	1.09
1 clerk of pay-rolls and mustering clerk.....	1.87
1 clerk to commandant.....	1.87
1 clerk, second, to commandant.....	1.50
1 chief accountant.....	1.87
1 clerk to chief accountant.....	1.50
1 gate-keeper and detective.....	1.00
1 messenger for commandant's office.....	750
Total.....	19,845

RECAPITULATION.

Place.	Asylum.	Civil.	Aggregate.
Portsmouth.....		\$16,039 00	\$16,039 00
Boston.....		19,039 00	19,039 00
New York.....		19,899 75	19,899 75
Philadelphia.....	\$6,142 00	16,039 00	22,181 00
Washington.....		17,039 00	17,039 00
Norfolk.....		16,039 00	16,039 00
Pensacola.....		15,917 00	15,917 00
Mare Island.....		19,845 00	19,845 00
Total.....	6,142 00	139,856 75	145,998 75

BUREAU OF YARDS AND DOCKS, October, 1869.

Y. & D.—No. 3.

Statement showing the several sums which make up the amount of the first item in the general estimate, from the Bureau of Yards and Docks, for the fiscal year ending June 30, 1871, marked Y. & D.—A.

For the civil branch, at all the yards and stations.....	\$139,856 75
For Naval Asylum at Philadelphia.....	6,142 00
Total.....	145,998 75

BUREAU OF YARDS AND DOCKS, October, 1869.

Y. & D.—No. 4.

Estimate of the amounts that will be required for the improvements and current repairs at the several navy yards, naval stations, and Naval Asylum at Philadelphia, for the fiscal year ending June 30, 1871.

PORTSMOUTH, N. H.

For commencing workshop and storehouse for yards and docks.....	\$45,000
For quay wall extension.....	75,000
For yard railroads.....	20,000
For enlarging dock basin and building two railways.....	335,356
For repairs of ordnance buildings.....	2,500
For repairs of all kinds.....	100,000
Total.....	577,856

BOSTON.

For new chimney at dry-dock engine house.....	\$12,546
For quay wall.....	50,000
For addition to muster office.....	5,514
For filling low places.....	90,000
For drains, paving, and flagging.....	60,000
For commencing workshop and storehouse for yards and docks.....	45,000
For boundary and fence.....	38,226
For additional filling at timber dock.....	49,642
For additional rail tracks.....	19,363
For rebuilding sheer wharf.....	48,829
For completing second story of ropewalk.....	102,095

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For rigging loft and store for equipmen	\$200, 000
For repairs of ordnance buildings	4, 000
For repairs of all kinds	100, 000
Total	747, 341

NEW YORK.

For yard railroads	\$20, 000
For drains, paving, and flagging	60, 000
For water pipes and hydrants	20, 000
For commencing timber and knee basin	100, 000
For yard walls	76, 000
For erecting shop	281, 347
For coal depot	74, 664
For dredging machine and scows	50, 000
For repairs of ordnance buildings	1, 500
For repairs of all kinds	150, 000
Total	833, 511

PHILADELPHIA.

For dredging machine and scows	\$50, 000
For repairs of ordnance buildings	1, 985
For repairs of all kinds	60, 000
Total	111, 985

WASHINGTON.

For depot for coal	\$19, 354
For extension of yard, west	166, 250
For extension of yard, east	98, 000
For marine railway	80, 000
For completing ordnance foundry	34, 328
For experimental battery	14, 900
For enlargement of officers' quarters, E, F, and G	11, 373
For repairs of ordnance buildings	47, 570
For repairs of all kinds	80, 000
Total	551, 775

NORFOLK.

For workshop No. 39	\$48, 581
For plumbers' shop and iron store	58, 369
For gas works No. 43	9, 200
For extension of erecting shop	21, 060
For boiler shop No. 41	61, 342
For repairs of ordnance buildings	9, 760
For repairs of all kinds	50, 000
Total	258, 312

PENSACOLA.

For iron and coal house	\$13, 224
For large iron crane	20, 000
For railroad to spar pond	9, 199
For repairs of all kinds	50, 000
Total	92, 423

MARE ISLAND.

For completing foundry and boiler establishment	\$66, 484
For cisterns	9, 675
For gas-house	24, 823
For saw-mill machinery	30, 000
For continuing quay wall	75, 000
For grading and paving	18, 000
For machinery for house-joiners' shop	5, 500
For water pipes	14, 990
For ordnance building	72, 067
For repairs of ordnance buildings	8, 000
For repairs of all kinds	100, 000
Total	424, 559

SACKETT'S HARBOR.

For repairs of all kinds \$3,200

MOUND CITY.

For repairs of all kinds \$6,432

NAVAL ASYLUM.

For annual repairs of buildings and care of grounds \$10,600
 For improvement of cemetery 500
 For support of beneficiaries 54,000

Total 65,100

RECAPITULATION.

For navy yard, Portsmouth, N. H. \$577,856
 For navy yard, Boston 747,341
 For navy yard, New York 833,511
 For navy yard, Philadelphia 111,985
 For navy yard, Washington 551,775
 For navy yard, Norfolk 258,312
 For navy yard, Pensacola 92,453
 For navy yard, Mare Island 424,539
 For naval station, Sackett's Harbor 3,200
 For naval station, Mound City 6,432
 For Naval Asylum, Philadelphia 65,100

Total 3,672,494

BUREAU OF YARDS AND DOCKS, October 1, 1869.

Y. & D.—No. 5.

Statement of estimates for repairs of all kinds at the several navy yards for the fiscal year ending June 30, 1871.

Objects.	Portsmouth, N. H., 1870-'71.	Boston, Mass., 1870-'71.	New York, N. Y., 1870-'71.	Philadelphia, Pa., 1870-'71.	Washington, D. C., 1870-'71.	Norfolk, Va., 1870-'71.	Pensacola, Fla., 1870-'71.	Mare Island, Cal., 1870-'71.	Sackett's Harbor, N. Y., 1870-'71.	Mound City, Ill., 1870-'71.
On yard buildings	\$26,000	\$26,250	\$60,000	\$13,000	\$30,500	\$6,500	\$8,000	\$30,000	.....	.....
On officers' quarters	6,500	7,000	5,000	1,500	5,000	9,000	6,000	12,000	.....	.....
On wharves, bridges, landings, and boats	16,250	15,750	15,000	1,200	2,000	11,000	3,500	10,000	.....	.....
On roads, walks, gutters, and drains	6,500	12,250	15,000	3,000	10,000	3,000	6,000	10,000	.....	.....
On fences and walls	3,250	3,500	3,000	800	1,200	2,500	5,000	1,000	.....	.....
On cranes, scows, and derricks	9,750	7,000	5,500	2,600	1,500	800	2,000	15,000	.....	.....
On furnaces, forges, stoves, and heating apparatus	6,500	2,100	3,500	750	3,000	1,200	1,200	1,500	.....	.....
On tracks and scales	1,000	2,800	2,500	2,500	3,000	700	5,000	1,000	.....	.....
On water and gas works	1,000	2,800	5,000	1,400	4,000	1,750	2,000	3,000	.....	.....
On dredging and scowage .....	.....	10,500	20,000	7,000	6,000	6,000	3,000	6,000	.....	.....
On dry dock	16,250	5,250	2,500	16,250	5,000	5,000	.....	.....	.....	.....
On miscellaneous repairs	7,000	4,800	13,000	10,000	8,800	2,550	8,300	10,500	\$3,200	\$6,432
On temporary buildings .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	100,000	100,000	150,000	60,000	80,000	50,000	50,000	100,000	3,200	6,432

BUREAU OF YARDS AND DOCKS, October 1, 1869.

Y. & D.—No. 6.

Statement of expenditures for contingent during the fiscal year ending June 30, 1869, with estimates for the fiscal year ending June 30, 1871.

Objects.	Portsmouth, N. H.		Boston.		New London.		New York.		Philadelphia.		League Island.	
	Expended in 1868-'69.	Estimated for 1870-'71.	Expended in 1868-'69.	Estimated for 1870-'71.	Expended in 1868-'69.	Estimated for 1870-'71.	Expended in 1868-'69.	Estimated for 1870-'71.	Expended in 1868-'69.	Estimated for 1870-'71.	Expended in 1868-'69.	Estimated for 1870-'71.
For freight and transportation	\$343 69	\$200	\$7 50	\$300			\$0 95	\$1 200		\$20		
For printing, stationery, and advertising	1,925 71	3,100	873 96	1,800			1,676 20	1,800	\$677 06	700		
For purchase and repair of fire-engines		1,900	2,462 22	3,600			1,965 57	8,000	415 84	3,000		
For machinery of every description and patent rights		3,100	2,427 21	9,000			1,465 32	12,000	183 25	1,000		
For repairs on steam-engines and attendance on same			1,403 54	6,000			2,738 92	8,000	66 34	1,500		
For purchase and maintenance of oxen and horses and driving teams	13,227 29	15,500	36,609 04	28,000			19,230 53	20,000	11,384 94	18,000		
For carts, timber wheels, and tools, and repairing	5,174 22	9,300	12,607 64	25,200			11,926 78	20,000	5,110 86	4,000		
For postage on letters on public service, and telegrams			335 68	500			202 75	300	90 05	150		
For furniture for government houses and offices in navy yards	1,689 24	3,100	1,180 12	10,000			2,617 27	2,400	319 79	1,000		
For coal and other fuel for yards and docks purposes	486 86	600	1,967 98	3,500			2,639 39	8,000	1,220 33	1,200		
For candles, oil, and gas	84 54	600	2,278 01	2,400			3,043 84	4,000	2,115 22	2,000		
For cleaning and clearing up yard and care of buildings	5,685 57	12,400	15,403 12	9,000			14,095 65	18,000	4,945 64	6,000		
For attendance on fires, lights, fire-engines, and apparatus	899 27	1,200	3,610 37	5,600			4,652 52	6,000	3,762 56	3,000		
For incidental labor, not chargeable to other appropriations	7,335 03	6,200	2,447 98	3,700			12,663 21	28,500	10,722 63	20,000		
For water tax	25 00	50	4,189 48	6,000			21,254 82	9,600	436 00	680		
For tolls and ferriages	30 00	50		100			287 00	500		50		
For pay of watchmen	24,205 50	22,300	22,754 12	34,000			39,456 35	80,000	15,020 00	18,000		
For books, maps, models, and drawings			57 00	600			2,583 75	3,000	12 35	500		
For flag, awnings, and packing boxes	207 35	500	45 96	700			687 98	700	23 35	100		
Totals	61,303 32	80,000	106,666 95	150,000	\$40,000	\$250,000	149,129 80	\$250,000	\$6,506 15	80,000		\$100,000

Y. & D.—No. 6.

Statement of expenditures for contingent during the fiscal year ending June 30, 1869, &c.—Continued.

Objects.	Washington.		Norfolk.		Pennacola.		Marc Island.		Stockett's Harbor.		Mound City.		Naval Academy.	
	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.	Expended in 1868-69.	Estimated for 1870-71.
For freight and transportation	\$1,638 27	\$1,600	\$1 23	\$1,000	\$1,108 28	\$1,500	\$1,704 41	\$2,000						
For printing, stationery, and advertising	2,698 55	5,000	437 42	1,000	1,503 02	1,500	2,176 59	2,000						
For purchase and repair of fire-engines	3,942 02	8,000	991 37	3,000	121 25	2,500	753 00	3,500						
For machinery of every description, and patent rights														
For repairs on steam-engines and attendance on same														
For purchase and maintenance of oxen and horses, and driving teams	6,477 18	9,000	5,945 08	4,000	641 39	4,000	505 42	4,500						
For carts, timber wheels, and tools, and repairing	15,771 13	14,000	14,603 44	17,000	3,695 16	8,000	13,363 16	16,000						
For postage on letters on public service, and telegrams.	9 65	100	6,921 31	6,000	6,705 43	5,000	9,009 21	8,500						
For furniture for government houses and offices in navy yards.	2,388 40	2,000	61 74	400	24 00	400	331 85	500						
For coal and other fuel for yards and docks purposes.	2,240 82	1,600	982 71	6,000	967 02	100	1,651 33	2,500						
For candles, oil, and gas	1,061 91	1,200	3,413 28	1,800	479 13	1,000	975 56	1,000						
For cleaning and clearing up yard, and care of buildings	5,615 56	10,600	2,986 08	2,000	552 60	1,500	8,388 33	8,500						
For attendance on fires, lights, fire-engines, and apparatus	5,387 92	6,000	4,318 78	9,000	8,340 28	9,000	997 51	2,000						
For incidental labor not chargeable to other appropriations	25,412 73	26,000	2,416 55	2,500	581 06	2,000	1,811 09	2,000						
For water tax														
For tolls and ferrriages	12,838 25	20,000	196 50	300	3,069 09	8,000	28,421 84	24,000	\$143 63	\$1,000	\$4,055 00	\$25,000		\$3,000
For pay of watchmen	1,374 93	2,000	13,702 97	24,000	10,615 50	15,000	9,779 46	17,000						
For books, maps, models, and drawings	8 00	300	82 18	800	121 61	1,100	152 98	300						
For flags, awnings, and packing boxes														
Totals	86,859 12	100,000	67,707 00	95,000	44,298 70	65,000	84,112 83	100,000	142 63	1,000	4,055 00	25,000		5,000

BUREAU OF YARDS AND DOCKS, October 1, 1869.

Y. & D. No. 7.

Estimate of the appropriations under the cognisance of the Bureau of Yards and Docks required for the service of the fiscal year ending June 30, 1871.

Heads or titles of appropriations.	Estimate of appropriations required for the service of the fiscal year ending June 30, 1871.	Appropriations for the fiscal year ending June 30, 1870.
Pay of civil establishment.....	\$145,998 78	\$50,000 00
Contingent enumerated.....	1,091,000 00	800,000 00
Navy yard, Portsmouth, New Hampshire.....	577,856 00	50,000 00
Navy yard, Boston.....	747,341 00	100,000 00
Navy yard, New London.....		
Navy yard, New York.....	833,511 00	100,000 00
Navy yard, Philadelphia.....	111,985 00	25,000 00
Navy yard, League Island.....		
Navy yard, Washington.....	551,775 00	50,000 00
Navy yard, Norfolk.....	258,312 00	30,000 00
Navy yard, Pensacola.....	92,423 00	30,000 00
Navy Yard, Mare Island.....	424,559 00	60,000 00
Naval station, Sackett's Harbor.....	3,200 00	1,000 00
Naval station, Mound City.....	6,432 00	5,000 00
Naval station, Key West.....		
Naval Asylum, Philadelphia.....	11,100 00	9,100 00
Support of beneficiaries.....	54,000 00	54,000 00
Total.....	4,909,493 75	1,364,100 00

BUREAU OF YARDS AND DOCKS, *October 1, 1869.*

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REPORT

OF

THE POSTMASTER GENERAL.

REPORT

OF

THE POSTMASTER GENERAL.

POST OFFICE DEPARTMENT,
Washington, D. C., November 15, 1869.

SIR: The ordinary revenues of this department for the fiscal year ended June 30, 1869, were \$18,344,510 72, and the expenditures \$23,698,131 50. For the year ended June 30, 1868, the ordinary revenues were \$16,292,600 80, and the expenditures \$22,730,592 65. The increase of revenue for the year 1869 over the preceding fiscal year was \$2,051,909 92, and the increase of expenditures \$967,538 85. The increase of revenue for 1868 over 1867 was \$1,055,573 93, and the increase of expenditures for 1868 over 1867 was \$3,495,109 19. The ratio of increase of revenue for the year 1869 is 12.59 per cent., and of expenditures 4.25 per cent., compared with receipts and expenditures for the year 1868. The increase of revenue for 1869 is greater than the increase for 1868 by \$996,335 99, and the increase of expenditures for 1869 is less than the increase for 1868 by \$2,527,570 34. If, therefore, the increase of receipts be compared with the increase of expenditures for the year last ended, it will appear that the increase of receipts exceeded the increase of expenditures in the sum of \$1,084,371 07; while a like comparison of the receipts and expenditures for the year 1868 will show an excess in the increase of expenditures over the increase of receipts for that year of \$2,439,535 26.

ESTIMATES FOR 1871.

The estimated expenditures for the year ending June 30, 1871, are.....	\$25,581,093
The revenues, estimated at 10 per cent. increase over last year.....	\$20,178,961
Standing appropriations for free matter.....	700,000
	<hr/> 20,878,961
Leaving a deficiency of.....	<hr/> 4,702,132

The foregoing estimates do not include the following special appropriations in the nature of subsidies:

For mail steamship service between San Francisco, Japan, and China	\$500,000
For like service between the United States and Brazil.....	150,000
For like service between San Francisco and Sandwich Islands	75,000
Total.....	<hr/> 725,000 <hr/>

Of the deficiency appropriated for the year 1869 there remains unexpended a balance of.....	\$1,500,000 00
Against which there are properly chargeable sundry unliquidated accounts, which cannot exceed the following estimates:	
For balances to foreign countries.....	\$250,000 00
For mail service under contract and recognized.....	284,186 35
For mail service unrecognized	150,000 00
	<hr/> 684,186 35
Leaving a net balance, after settlement and payment of all liabilities, of.....	<hr/> 815,813 65 <hr/>

STAMPS AND STAMPED ENVELOPES.

The number of postage stamps issued during the year was 420,896,540, representing.....	\$12,706,220 00
The number of periodical stamps was 150,920, representing.....	16,348 00
Stamped envelopes, plain, 46,265,750, representing....	1,332,862 50
Stamped envelopes, request, 31,814,100, representing...	950,726 00
Newspaper wrappers, 3,595,250, representing	71,905 00
	<hr/>
The whole number of stamps, envelopes, and newspaper wrappers was 502,722,560, of the aggregate value of.....	<hr/> 15,078,061 50 <hr/>

The increase thereof is best exhibited by the following table:

Description.	Fiscal year ending June 30, 1868.	Fiscal year ending June 30, 1869.	Increase.	Increase per cent.
Postage stamps	\$11,736,264 00	\$12,706,220 00	\$969,956 00	8 26-100
Newspaper and periodical stamps.....	14,750 00	16,348 00	1,598 00	10 83-100
Plain stamped envelopes.....	1,285,218 00	1,332,862 50	47,644 50	3 70-100
Request stamped envelopes.....	759,520 00	950,726 00	191,206 00	25 17-100
Newspaper wrappers	67,372 00	71,905 00	4,533 00	6 72-100
Aggregate.....	13,863,124 00	15,078,061 50	1,214,937 50	8 76-100

The issue of periodical stamps was discontinued by my predecessor about February 1, 1869.

The number of packages of postage stamps lost in the mails during the year was 22, representing \$818; and of stamped envelopes 15, representing \$259 30, being much less than the losses from like delinquencies in 1868.

CONTRACTS.

There were in the service of the department on the 30th of June, 1869, 7,056 contractors for the transportation of the mails.

Of mail routes in operation there were 8,449, aggregating in length 223,731 miles, in annual transportation 90,723,403 miles, and in annual cost \$10,406,501. If the compensation of railway post office clerks, route agents, local agents, mail messengers, mail route messengers, and baggage-masters in charge of mails, amounting to \$1,275,227, be added,

the aggregate annual cost will be \$11,681,728. This service was divided as follows:

Railroad routes: Length, 39,537 miles; annual transportation, 41,399,284 miles; annual cost, \$4,723,680—about 11.41 cents per mile.

Steamboat routes: Length, 20,779 miles; annual transportation, 4,331,011 miles; annual cost, \$774,536—about 17.88 cents per mile.

“Celerity, certainty, and security”: Length, 163,415 miles; annual transportation, 44,993,108 miles; annual cost, \$4,908,285—about 10.9 cents per mile.

There was an increase over the preceding year in length of routes of 6,803 miles; in annual transportation, 6,499,078 miles; and in cost, \$140,445. To the last add increased cost for railway post office clerks, route, local, and other agents, \$160,594, and the total increase of cost will be shown to be \$301,039.

The foregoing statements of distances and costs do not include service for “special” offices. There were, at the close of the year, 1,962 of these offices, each with a mail carrier, whose pay from the department is not allowed to exceed the net postal yield of the office. “Special” routes and their carriers are included in the number of contractors and routes as given above.

OVERLAND MAIL.

The contract or agreement entered into on the 21st October, 1868, between the Post Office Department and Messrs. Wells, Fargo & Co., for the transportation of the United States mails between the western terminus of the Union Pacific railroad and the eastern terminus of the Central Pacific, for the term of one year from October 1, 1868, or until the two railroads should meet, at the rate of \$1,750,000 per annum, subject to deduction *pro rata* for every section of fifty miles of railroad completed and reported to the department ready to carry the mails, expired on the 9th of May, 1869, the railroads having effected a junction and reported ready to carry mails through on the 10th. When the contract was entered into, it was estimated that the junction would not be formed before the 31st July, it being supposed that the severity of the weather would compel a suspension of work on the railroads during the months of January, February, and March; and it was further estimated that the cost of the mail service under Wells, Fargo & Co.’s contract would amount to \$670,144. The weather proving unusually mild, however, and the progress of the roads being uninterrupted, their completion was accelerated nearly three months, and hence the cost of the service under the contract with Wells, Fargo & Co. was reduced \$214,339 36 below the estimate. The amount actually paid to them for the whole period from 1st October, 1868, to 9th May, 1869, inclusive, (221 days in all,) after making deductions for completed sections, was \$455,804 64.

The temporary contract entered into on 31st October, 1868, with the same parties, at \$79,000 per annum, for that division of the overland mail route extending from the terminus of the Kansas Pacific railway to Denver, numbered 14,167, and known as the “Smoky Hill route,” expired by limitation on the 30th June, 1869. The route had been curtailed in the mean time so as to commence at Cheyenne Wells, being coincident that far with the daily route to Santa Fé, and \$14,149 deducted from the annual pay, for thirty-six miles decrease, reducing the pay to \$64,851 per annum. The route as thus curtailed, and numbered 17,034, was advertised under date of January 6, 1869, to be let from 1st July then

next, the department offering to receive proposals until the 7th April and to decide thereon by the 14th of the same month. Under this advertisement several bids were submitted, the lowest being \$34,600 per annum. It appearing, however, from the specific reports of postmasters, that the mail matter conveyed over the route had become considerable, owing to the transmission of the principal mails for Denver over the Union Pacific railroad, after its completion, *via* Cheyenne City, and that there were no post offices whatever between Cheyenne Wells and Denver on route 17,034^a, the continuance of the service was not deemed to be of sufficient importance to justify the expense it would involve, and the route was consequently left out of operation from 30th June, 1869.

The contract made on the 28th October, 1868, with Wells, Fargo & Co., to carry the mails for one year from October 1, 1868, on route 17,035, from Cheyenne City to Denver, one hundred and two miles, and back, daily, at \$9,970 50 per annum, expired on the 30th September, 1869, and the route was re-let from October 1st, under the above-mentioned advertisement of January 6th, to the same parties, they being the lowest bidders, at \$8,640 per annum. This is all that remains of the old overland mail service, and this will doubtless be superseded in a few months, a railroad between Cheyenne City and Denver being now in rapid course of construction.

READJUSTMENT OF PAY ON RAILROAD ROUTES.

In anticipation of the close of the contract term in the New England States and the State of New York, and with a view to obtain data upon which to base the readjustment of the rates of pay for the transportation of mails on railroad routes in those States for the new term commencing July 1, 1869, circulars were sent out in February last to the proprietors of all such routes, requesting them to weigh the mails they conveyed for thirty days from the 1st March, and report the result to the department, and to furnish, also, descriptions of the accommodations provided for mails and agents, together with statements showing the number of times per week the mails were conveyed in each direction. The information obtained in answer to this call is comprised in table E of the report of the Second Assistant Postmaster General, hereto appended, in which there are also embraced returns from a number of routes in other States, made at various times since the publication of a similar table in the annual report for 1867. It is the purpose of the department in the future to make a similar call upon the proprietors of railroad routes near the close of the contract term in each of the four contract sections into which the country is divided, so that the readjustment of pay in every case may be made upon new and corrected returns.

The rates heretofore paid for railroad mail service in New England and New York have been carefully compared with the returns just received from those States; and in every instance in which the amount and character of the service have been found to be clearly insufficient to justify the rate allowed, a commensurate deduction has been made. On the other hand, whenever a demand for increased pay has been made which the returns appeared to warrant, such increase has been allowed. Changes have thus been made in the rates of pay on more than fifty railroad routes in that section, comprising over one-third of the whole number. These roads have been classified, and their pay readjusted and established, in strict conformity with the conditions prescribed by law, to wit: "the size of the mails, the speed with which they are con-

veyed, and the importance of the service." The details of this classification and readjustment appear in table F of the report of the Second Assistant, also hereto appended, which embraces also a number of routes in other States on which changes have been made, on application by the proprietors of the several roads, at different times, since the preparation of the last annual report. On all of these routes together, 78 in number, the former annual pay amounted to \$742,852 63. The annual pay, as readjusted, now amounts to \$803,706 58, showing an excess of the present over the former amount of annual pay of \$60,853 95.

In these tables, (E and F,) as in similar ones heretofore published, the routes are arranged, not by States, but according to the rate of pay per mile per annum, the highest being first. Each is accompanied by an alphabetical index, for easy reference.

Great complaints have been made by some of the principal railroad companies in relation to the alleged inadequacy of their compensation for carrying the mails. They assert that the rates of their pay were fixed by the act of 3d March, 1845, and have remained unchanged for nearly twenty-five years; and that although the pay thus established was, at the time of the passage of the act, just and ample, it now falls short of what they are fairly entitled to. It cannot be denied that, since the passage of the act of 1845, important changes have taken place, the most conspicuous of which are the following: a large increase in the quantity and weight of mail matter; an additional number of trips per day to meet the necessities of the service; and the introduction of railway post offices, requiring much heavier and more expensive mail cars. These changes have imposed additional duties upon the railroads constituting the great trunk lines, and have largely increased their expenses. In justice to this class of roads, I respectfully recommend a careful revision and readjustment by Congress of railroad compensation, and the establishment of such rates as will be just and equitable to all concerned.

POST-ROUTE MAPS.

During the past year, the preparation and publication of the series of post-route maps of the United States have been continued, under the supervision of the Topographer of the department.

The map, in four sheets, of the States of Pennsylvania, New Jersey, Delaware, and Maryland, and of the District of Columbia, having been completed, copies are now being furnished to such postmasters and other agents of the department as the interests of the service require.

The map of the State of Maine, which embraces portions of New Hampshire and the Dominion of Canada, and one sheet of the double-sheet map of the States of Ohio and Indiana, are nearly finished, and will be ready for issue during the coming winter.

The drawings for a double-sheet map of the States of Michigan and Wisconsin have been placed in the hands of the engraver, to be completed next summer. To continue the series as projected, there come next in order the States of Illinois, Iowa, Missouri, and Minnesota.

With a view to the future construction of accurate post-route maps of the States of Kentucky, Tennessee, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Texas, which have not been covered by the rectangular system of land survey of the general government, nor by sufficiently precise and reliable surveys by the State or local authorities, the Topographer suggests that some provision be made beforehand for the determination of the exact position on the earth's

surface of, at least, the most important points in these States; and he inquires whether, in case the State themselves should continue indifferent to the subject, an accurate survey could not be undertaken under the joint direction of the engineer officers of the army and the astronomers of the Coast Survey and of some of the standard observatories. The subject is worthy of careful consideration.

FINES AND DEDUCTIONS.

The amount of fines imposed on contractors, and deductions made from their pay, on account of failures and other delinquencies, during the last year, was \$94,193 81; and the amount remitted was \$43,950 99, leaving the net amount \$50,242 82.

MAIL BAGS, LOCKS, AND KEYS.

The number, description, and cost of mail bags, locks, and keys, purchased during the year, will appear in detail by reference to a table annexed. The amount expended for new mail bags of all kinds was \$89,420, or \$31,403 13 more than the amount expended the preceding year. The cost of mail-bag catchers, recently introduced into the service, for delivering and receiving mails from and on railway trains at full speed, was \$1,900. This amount does not appear in the table last mentioned, but is included in the item of mail bags.

THROUGH MAILS.

Since the completion of the railroad line to the Pacific, arrangements have been made to have records kept showing the time occupied in the transit of mails from Washington, New York, Boston, Chicago, Cincinnati, and St. Louis to Denver City, Salt Lake City, Sacramento City, and San Francisco, and back. The appendix contains a copy of the circular giving the necessary instructions to postmasters and others. The records of arrivals on the Atlantic side during the month of October have reached the department. They show that mails are carried through from San Francisco to Washington in 6 days, 23 hours, and 15 minutes; to New York, in 6 days, 15 hours, and 20 minutes; to Boston, in 7 days, 4 hours; to Chicago, in 5 days, 7 hours, and 30 minutes; to Cincinnati, in 5 days, 22 hours, and 30 minutes; and to St. Louis, in 5 days, 1 hour, and 30 minutes. The above figures show the time of the shortest trips. The average time was: to Washington, 7 days, 7 hours, and 11 minutes; to New York, 7 days, 2 hours, and 23 minutes; to Boston, 7 days, 19 hours, and 25 minutes; to Chicago, 5 days, 14 hours, and 55 minutes; to Cincinnati, 6 days, 8 hours, and 32 minutes; and to St. Louis, 5 days, 16 hours, and 23 minutes. Compared with the time from San Francisco, the time from Sacramento City is 6 hours and 20 minutes less; from Promontory, 2 days and 10 minutes less; from Salt Lake City, 2 days and 9 hours less; from Denver City, 1 day, 23 hours, and 30 minutes less; and from Omaha City, 4 days, 7 hours, and 30 minutes less—Salt Lake City being distant from the railroad 29 miles, and Denver City 102 miles. Under the old overland mail contracts, the time from the Missouri River to Folsom City, 23 miles east of Sacramento City, was 16 days from April 1 to December 1, and 20 days for the remainder of the year.

Mails have been transmitted twice a day each way between New York and New Orleans since the 1st of March last, once over the South-

western route, via Washington, D. C., Lynchburg, Va., and Knoxville, Tenn., and once over the *Western route*, via Louisville, Ky., and Humboldt, Tenn. By the latter route a portion of the trips have been made in shorter time than by the former, the shortest being 78 hours and 30 minutes going south, and 76 hours and 15 minutes going north, while the shortest by the former was 84 hours and 35 minutes going south, and 85 hours and 20 minutes going north. Greater regularity exists on the *Southwestern route*, however, on which the average time from March to September, inclusive, was 89 hours and 29 minutes going south, and 90 hours and 59 minutes going north; while the average on the *Western route* for the same period was 92 hours and 13 minutes going south, and 90 hours and 14 minutes going north. Taking both directions together, there were carried through, from March to September, inclusive, on the *Southwestern route*, 429 mails, at an average speed of 90 hours and 14 minutes; and on the *Western route*, 359 mails, at an average speed of 91 hours and 18 minutes. By comparison with the through-mail tables in the last annual report, it will be seen that the average time on both these routes is sensibly improved.

A greater expedition has recently been obtained between New York and Chicago, one of the three daily trips over the Allentown route (*via* Pittsburg) being made in less than 31 hours each way.

SPECIAL AGENTS.

The number of special agents in the employ of the department during the last fiscal year was forty-eight, at an aggregate compensation of \$134,342. Under the impression that this force was excessive, Congress, in the appropriation act for the current year, appropriated \$100,000 "for detecting and preventing mail depredations, and for special agents," and then restricted the action of the department by declaring that "no greater sum shall be paid special agents than is hereby provided." The department, desiring to conform to the law, and at the same time to render the force of special agents as efficient as possible, deemed it necessary to reorganize this branch of the service. The following plan was adopted and promulgated, to take effect July 1, 1869, viz:

The Union is divided into six divisions, which are subdivided into districts.

To each of five of these divisions is assigned one special agent, with the designation of "*Assistant Superintendent of Railway Mail Service.*"

These six divisions are as follows:

I. Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

II. New York, Pennsylvania, New Jersey, Delaware, Maryland, and the Eastern Shore of Virginia.

III. Virginia, (excluding the Eastern Shore,) North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi.

IV. Ohio, West Virginia, Michigan, (excluding the upper peninsula,) Indiana, Kentucky, and Tennessee.

V. Illinois, Iowa, Missouri, Arkansas, Minnesota, Wisconsin, and the upper peninsula of Michigan.

VI. Embraces all that territory west of the 96th meridian, and Louisiana.

The districts of these six divisions are as follows:

First Division.—First district, Maine, New Hampshire, and Vermont; second district, Massachusetts, Rhode Island, and Connecticut.

Second Division.—First district, New York; second district, Pennsylvania; third district, New Jersey, Delaware, Maryland, and the Eastern Shore of Virginia.

Third Division.—First district, Virginia, (excluding the Eastern Shore,) and North Carolina; second district, South Carolina, Georgia, and Florida; third district, Alabama and Mississippi.

Fourth Division.—First district, Ohio and West Virginia; second district, Indiana and Michigan, (excluding the upper peninsula;) third district, Kentucky and Tennessee.

Fifth Division.—First district, Illinois and Iowa; second district, Minnesota, Wisconsin, and the upper peninsula of Michigan; third district, Missouri and Arkansas.

Sixth Division.—First district, Nebraska, Kansas, and Dakota; second district, Colorado, New Mexico, and Arizona; third district, Utah, Wyoming, Montana, and Idaho; fourth district, California and Nevada; fifth district, Oregon and Washington; sixth district, Louisiana and Texas.

To each of the districts in the first five divisions is assigned one special agent with the designation of "*Post Office Inspector.*"

And to each of the districts in the sixth division is assigned one special agent, without any designation other than that in the original text of his letter of appointment.

It will be observed that the foregoing arrangement divides the force in manner following: Five assistant superintendents of railway mail service, charged with the supervision of the transportation of the mails; fourteen inspectors, authorized to inquire into the management and expenditures of post offices; and six agents with general powers in the sixth division. In addition to the foregoing, the department has in its service one agent engaged on the free delivery, one agent on the money-order system, and eight agents in detecting and preventing mail depredations; making in all thirty-five men, all of whom are under the general direction of a Superintendent of Railway Mail Service, appointed under the act of March 3, 1865, section 5. By this division of labor it is believed that much more satisfactory results will be attained. But as the field of operations of these officers has been much enlarged, and their duties made more specific and exacting, it is respectfully submitted that the amount of the appropriation for the current year is too small to meet the wants of the service. It is therefore recommended either that the appropriation be increased to \$125,000 per annum, or that the department be permitted to charge the expense of the five "*Assistant Superintendents of Railway Mail Service*" to the transportation fund, and the expense of the special agents in charge of the free delivery and of the money-order system to the account of the free delivery and the money-order system, respectively. It is further submitted that a sum should be placed at the disposal of the department to defray the expenses of such temporary special agents as the extraordinary emergencies of the service may demand.

RAILWAY POST OFFICES.

On the 30th June last, there were in operation 37 lines of railway post offices, extending in the aggregate over 7,201 miles of railroad and steamboat lines—being an increase of 3 lines and 182 miles of service over the year 1868. The number of clerks employed during the last year was 324, at an annual cost of \$384,300. During the previous year, the number of clerks employed was 297, and the amount expended in compensation \$329,700. No increase was made during the last year in the twice-daily service, except by interchangeable pouches between the principal post offices and between the several lines. The railway post office, by reason of the additional facilities it affords in mailing important letters up to the moment of the departure of the trains, and in receiving, assorting, and distributing the mails during their transit, thus saving many hours, and in some instances days, in the communication between important points, has become an essential part of the service. It is in fact indispensable, and, as the population and wealth of the country shall increase, it will be necessary to extend it to keep pace with the wants and demands of the people.

A list of railway post office lines in operation on the 30th June, 1869, is appended hereto.

FOREIGN MAIL SERVICE.

The total number of letters passing between the United States and foreign countries (Canada excepted) during the last year was 12,596,654, of which 6,638,858 were sent from, and 5,957,796 received in, the United States. The increase over the number exchanged in 1868 is 1,468,122. Estimating the number exchanged with the dominion of Canada, of which no accurate account is reported, at 3,000,000, the whole number of letters exchanged in the mails with foreign countries exceeded 15,500,000. The total postages on letters exchanged with foreign countries, estimating the postage on letters to and from Canada at \$350,000, amounted to \$2,014,183 15.

The aggregate amount of postage, inland, sea, and foreign, upon the letter correspondence exchanged with Great Britain and other European countries, during the year 1869, was \$1,503,773 05, being \$202,694 71 less than the postage receipts of the previous fiscal year. The number of letters (single rates) exchanged in the mails with the same countries was 11,428,551, an increase of 1,359,892 over the number exchanged in the previous year. Notwithstanding the recent reductions of postage to all the countries of Europe, except France, amounting in most instances to fifty per cent., the increased correspondence has produced a revenue only twelve per cent. less than that derived from the higher rates of the preceding year.

The postages upon letters sent to European countries exceeded the postages upon letters received from Europe in the sum of \$44,968 13, the excess of letters sent being about six per cent. This very small excess of postage on correspondence sent over that on correspondence received is a convincing argument in favor of simplifying our postal arrangements with other countries by dispensing with the present complicated and expensive international postage accounts. This can be readily accomplished by adopting the rule of compulsory prepayment of postage, and by providing (upon the general principle, now well established, that every letter brings a reply) that the postages collected on all international correspondence shall belong wholly to the dispatching office; that no charge whatever shall be made at the office of destination in the country wherein the correspondence may be delivered; and that in all cases the dispatching office shall defray the expense of intermediate transmission. The inconsiderable pecuniary disadvantages which might result to either post department under the practical working of such a system would be more than compensated by the convenience of the arrangement and the abolition of intricate and vexatious accounts. This principle has already been adopted in the conventions with some of the countries with which the United States has direct postal relations, and it is hoped that the post departments of others will also see the propriety of adopting it, as a means of simplifying and promoting international postal exchanges.

The excess of collections in the United States over the postages collected in Europe upon the letter correspondence exchanged with Great Britain, the North German Union, France, Belgium, the Netherlands, Switzerland, and Italy, was \$374,924 85, sixty-two per cent. of the entire international postage charges having been collected in this country. This result is owing, mainly, to a failure to prepay postages abroad. The excess of like collections during the previous year was \$474,020 30. These excessive collections of postage in the United States cause heavy balances against this department on settlement of the quarterly ac-

counts with the respective foreign post departments. During the last fiscal year, the aggregate of such balances amounted to \$185,385 07.

The steamship lines employed by this department in the transportation of the mails to Great Britain and the continent of Europe performed four weekly services from New York, a weekly service from Quebec in summer and Portland in winter, and three outward trips from Baltimore, receiving as compensation the sea postages on the mails conveyed.

The earnings of the respective lines amounted to the sum of \$336,207 49, as follows:

The North German Lloyd line, for fifty-two trips from New York to Southampton.....	\$80,432 71
The Cunard line, for fifty-two trips from New York to Queenstown.....	71,578 08
The Hamburg-American Packet Company, for fifty-two trips to Southampton, &c., (estimating fourth quarter at \$20,000).....	103,839 10
The Inman line, for fifty-two trips from New York to Queenstown.....	74,563 32
The Canadian line, for fifty-two trips to Liverpool.....	5,750 03
The Baltimore and Liverpool Steamship Company, for three trips from Baltimore to Liverpool.....	44 25
Making a total of.....	<u><u>336,207 49</u></u>

The cost of the United States transatlantic mail steamship service for the fiscal year 1867 was \$551,338 01; and for the year 1868, \$421,774 44—the reduced rates of sea postage established by the present postal convention with Great Britain having been in operation during the last six months of the year 1868.

The United States postages on the mails conveyed to and from the West Indies amounted to \$88,984 24, and the compensation paid for their transportation was \$69,862 09.

There was also paid to the owners of steamships conveying mails to and from Central America, Mexico, Nova Scotia, &c., under the provisions of the general law limiting the compensation to the postages, the sum of \$12,272 20, making an aggregate expenditure for ocean mail transportation under the general law of \$418,341 78. Adding the special appropriations for the mail steamship service to Japan and China, to Brazil, and to the Hawaiian Islands, which amount to \$725,000, the total cost of the United States ocean mail service for the year 1869 was \$1,143,341 78. The tabular statements in the appendix furnish detailed information of the operations of the foreign mail service during the year.

The appointments of government agents in charge of the United States mails on board of the mail steamers plying between San Francisco, Japan, and China, and between San Francisco and Honolulu, were revoked in the month of April last, and notice was given to the respective steamship companies that thenceforth they would be required to securely transport and safely deliver the mails at each terminal and intermediate port according to the stipulations of their contracts. As the employment of mail agents on board of these steamers appeared to be of little practical benefit, I considered it my duty to discontinue their services. The duties which they discharged are now performed without charge by the pursers of the steamers.

I have not considered it expedient, in the present condition of the service, to establish a general postal agency at Shanghai, with branch agencies at other ports in China and Japan, as authorized by the 7th section of the act of July 27, 1868. The United States consuls at Shanghai and Kanagawa still continue to act, with the consent of the Department of State, as resident mail agents at those ports, in connection with their consular duties.

Regular monthly trips have been performed, according to contract, on the United States steamship routes between New York and Rio de Janeiro, (Brazil,) and between San Francisco and Honolulu.

Eleven round trips were performed during the year by the steamers of the Japan and China line, the regular monthly service required by law having been commenced in the month of August, 1868, and subsequently maintained without interruption. The attention of Congress was called by my predecessor, in his last annual report, to the expediency of providing for an increase of service on this line on the completion of the Pacific railway across our continent. This great national highway has been opened during the last year to the Pacific Ocean, placing San Francisco in direct, speedy, and certain communication by rail with the commercial cities of the Atlantic seaboard; and the period is not distant when our rapidly increasing commerce with Japan and China will require the employment of additional steamers on this route. The question of providing for an increase of mail service to semi-monthly, on such terms as will, under the circumstances, be just, as well to the contractors as to the government, is respectfully submitted to the discretion of Congress.

The necessity of some legislation to encourage the re-establishment of American lines of transatlantic steamers is apparent from the fact that, of the many lines of steamships now profitably employed in the carrying trade between this country and Europe, there is not one steamer bearing the American flag. It is humiliating to our national pride to find not only that our vast commerce with Europe is monopolized by foreign steamship lines, but that even the mails we send abroad have to be transported under the protection of foreign governments.

The experience of the last few years clearly demonstrates that sailing vessels can no longer successfully compete in the carrying trade of the world with vessels propelled by steam. This fact admitted, it follows that some legislation is required to encourage American ocean steam navigation, and to revive the great maritime interests of the country. The subject occupied the attention of Congress at the last session; but the multiplicity of steamship projects presented, and the rivalry of opposing interests seeking government aid, prevented any appropriate action.

Propositions have been made to this department by parties represented as responsible and experienced in ocean steam navigation to contract for the conveyance of the United States mails to European ports by American steamships of the first class and of equal speed to the fastest steamers now carrying the mails, at a compensation limited to the amount of sea postages, upon condition that the department should bind itself for a long term of years, *subject to the approval of Congress*; and some have offered in this connection to fix the rate of sea postage at two cents per half ounce. But, as the general law relating to contracts for carrying the mails on the seas expressly limits the authority of the department to a term not exceeding two years, I have declined all proposals to contract for a longer time, not desiring in any

manner to forestall the action of Congress upon a subject of so much importance.

If it be possible, I should greatly prefer such legislation by Congress as would so far revive and encourage our own ship-building interests as to enable American builders and mechanics to enter into active competition in the construction and equipment of steam vessels with the builders and mechanics of other countries. If, however, it should be decided that this cannot be done, then I would respectfully suggest the propriety of so modifying our navigation laws as to authorize the issuing of American registers to such foreign-built steamers as may be purchased and employed by citizens of the United States under contracts with this department in the transportation of our foreign mails.

Should either of these recommendations be adopted, and authority given to the Postmaster General to contract for the conveyance of mails by sea for a term of ten or fifteen years, at a compensation not to exceed the ocean postages, it is believed that lines of first-class American steamers would be speedily established for the conveyance of our mails and freights across the Atlantic, and that thereby great benefits would inure to the commercial and other interests of the United States.

An additional article to our postal conventions with Switzerland and Italy, respectively, has been executed, which modifies the rule of accounting on unpaid and insufficiently prepaid correspondence exchanged in the mails with each of those countries. Copies thereof are annexed.

The efforts of this department to conclude a postal convention with Brazil, regulating the reciprocal exchange of correspondence with that empire by means of the subsidized line of mail steamships plying between New York and Rio de Janeiro, have not been attended with the success anticipated. A modified *projet* of articles has recently been submitted by this department, through the Department of State, which it is hoped will be accepted by the government of Brazil.

A proposition is under consideration for a postal convention establishing a direct exchange of correspondence between the United States and the Argentine Republic.

Preliminary steps have also been taken towards a direct postal arrangement with Denmark, including Sweden and Norway, with the purpose of reducing the existing postage rates on correspondence exchanged between the United States and those countries.

The present postal convention between the United States and France was concluded on March 2, 1857. It establishes a combined rate of international postage at fifteen cents per quarter ounce, equal to thirty cents per half ounce, a higher rate than is charged upon correspondence between the United States and any other civilized nation with which we are in direct communication. It is incomplete in that it makes no provision for the exchange of mailable articles other than letters. It adopts an exceptional standard weight of one-quarter ounce for the single rate of letters, differing from the uniform standard of one-half ounce established with all other countries. The postage charge for letters is exorbitantly high, compared with the cheaper rates recently adopted with all other countries of Europe. In its details and practical operation it is very unequal, giving unfair advantages to the French post department, and fails utterly to meet the advanced opinions of the times in regard to international postal intercourse, and to afford the public benefits that postal conventions are intended to secure.

The necessity of a revision of this convention on a more liberal basis was made known to the general post department of France in Decem-

ber, 1866; and on the 4th of February, 1867, official intelligence was communicated by the French minister, M. Berthemy, through the Department of State, that the government of the Emperor was also of the belief that a new convention would be of advantage to the two countries, accompanied with the request that a special delegate or employé of the American post office should be sent to Paris with complete instructions to confer with the Director General of the French Posts upon the conditions of agreement between the two post departments. This invitation was promptly accepted, and Hon. John A. Kasson was appointed on the 5th April, 1867, a special commissioner on behalf of this department to proceed to Paris, and there negotiate and arrange the conditions of a more liberal postal convention, subject to the approval of the Postmaster General of the United States. Mr. Kasson left immediately for Paris, and entered upon the negotiations intrusted to him. He remained in that city several months, laboring faithfully and perseveringly to accomplish the object of his mission, but failed to obtain any amelioration of our postal relations with France, although he succeeded, during the same visit to Europe, in negotiating liberal postal conventions, establishing greatly reduced postage rates, with Great Britain, the North German Union, Belgium, the Netherlands, Switzerland, and Italy.

The apparent unwillingness of the French post department to modify the provisions of the present convention in conformity with the more liberal principles adopted in our postal intercourse with other countries of Europe induced my predecessor, on the 8th of January, 1868, to give the required notice to terminate that convention on the 1st February, 1869, and at the same time to request the French post department to send an agent to Washington authorized to enter upon the negotiation of a new convention. This invitation was declined by the French administration. Afterwards, on the application of the French office, the duration of the convention was prolonged until the 1st of April, 1869.

Soon after assuming charge of the department, I learned that no progress had been made in adjusting the basis of a new convention, and that, unless a second extension could be had, the subsisting convention would expire before any further action could be taken for its reformation. Impelled by an earnest desire to maintain our direct postal relations with France on an improved basis of liberality, mutually advantageous to the public of both countries, I proposed to the French office, under date of 10th March, to further prolong the duration of the present convention until 1st January, 1870. A letter from the French Director General of Posts, dated 3d March, making the same proposition, crossed my own in transit, and was received at this department on the 14th of the same month. A second extension having been thus effected, I immediately reopened negotiations. Being fully satisfied, from an exchange of letters, that there was no prospect of harmonizing the conflicting views and propositions of the two departments through the ordinary medium of epistolary correspondence, I decided to make another effort to adjust the points of disagreement by direct personal negotiations at Paris. I very fortunately had it in my power to avail myself of the services of Hon. Alexander Ramsey, chairman of the Senate Committee on Post Offices and Post Roads, who, at my solicitation, consented to undertake these difficult negotiations. He was accordingly designated a special commissioner on behalf of this department to negotiate with the general post office at Paris the basis of a new postal convention with France.

Governor Ramsey arrived in Paris on the 23d July, 1869, and immediately entered upon the important duties intrusted to him. Since that

date several proposals and counter proposals have been submitted and considered, personal interviews had with the French Director General of Posts and the Minister of Finance, for mutual interchange of opinions and explanations, and yet no progress has been made towards the conclusion of a new convention, on account of the persistent adherence of the French postal administration to impossible propositions and conditions, so illiberal and unjust towards the United States that considerations of national self-respect would alone forbid their acceptance by this department. The negotiations of Governor Ramsey at Paris, which have been conducted with great ability, patience, and perseverance on his part, have, I regret to state, been terminated, after three months' efforts, without any reasonable hope of an agreement on the leading provisions of the proposed new arrangement; and it seems probable, therefore, that our direct postal relations with France will cease on the 1st January next.

Passing without comment other unreasonable and illiberal propositions, the following may be mentioned as among the impossible conditions persistently insisted upon by the French post department:

First. That France shall have a *double share* of the interior rates of postage—a demand so extraordinary and so manifestly unjust as to require no argument to demonstrate its unfairness, in view of the well-known fact that the expense of our interior service is not only greater than that of France, but its extent vastly larger, embracing a territory (exclusive of Alaska) fourteen times greater than that of France.

Second. That the United States shall establish a line of mail packets between New York and Brest for the performance of a regular semi-monthly service similar to the service performed by the subsidized line of French packets between these ports, or else pay the entire expense of the sea and British inland transportation of all mails conveyed by way of England, which constitute at present more than four-fifths of the entire correspondence exchanged with France.

A postal convention has been concluded with Great Britain, establishing a reciprocal exchange of correspondence between the United States and the colony of British Honduras, a copy of which is annexed.

The provisions of our postal convention with the colony of Hong Kong have been extended to book-packets, subject to the same conditions as newspapers and prices-current, and to the regulations governing the transmission of book-packets between this country and the United Kingdom.

Negotiations have also been opened with the British post department for a further reduction of the international letter postage between the United States and Great Britain. The existing postal convention with Great Britain, which went into operation on the 1st January, 1868, established a reduced international letter rate of sixpence, (twelve cents,) and provided that the question of a further reduction should be considered at the expiration of twelve months from that date. Agreeing with the very general expression of opinion on both sides of the Atlantic in favor of the establishment of ocean penny postage between the two countries, I made a proposal, under date of 8th October last, to the general post office in London, to further reduce the postage on letters to threepence (six cents) on the 1st January, 1870, of which one penny (two cents) should be the sea postage, and one penny (two cents) the inland postage of each country. Intelligence has lately been communicated by the British minister, through the Department of State, of the readiness of the British government to reduce the single rate of postage for prepaid letters to the sum above mentioned. It may, therefore, be safely announced

that this important measure, so long and so earnestly desired by the people of the United States and the United Kingdom, as a means of further promoting their mutual prosperity and happiness, has been virtually accomplished.

The contrast between the policies of the postal administrations of Great Britain and France is most striking. Considering the probabilities of the future, I cannot refrain from an expression, on the one hand, of my great satisfaction that, on the 1st January next, the people of the United States and Great Britain will be enabled to enjoy more cordial and intimate relations by means of their enlarged postal facilities, and, on the other, of my profound regret that, on the same day, all direct postal communication between the United States and France will cease, because of the unwillingness of the latter to unite in any arrangement that will afford equal facilities and reciprocal advantages to both contracting parties, and at the same time keep pace with the liberal sentiments of the day in relation to postal intercourse between enterprising and enlightened nations.

APPOINTMENTS.

The report of the appointment office shows the following:

Number of post offices established during the year	1, 653
Number discontinued	1, 028
Increase	625
Number in operation on June 30, 1868	26, 481
Number in operation on June 30, 1869	27, 106
Number of offices to be filled by appointments of the President	980
Number to be filled by appointments of the Postmaster General	26, 126

Appointments were made during the year—

On resignations	3, 994
On removals	2, 691
On changes of names and sites	166
On deaths of postmasters	230
On establishment of new offices	1, 653
Total appointments	8, 734

Number of cases acted upon during the year	9, 996
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The number and aggregate compensation of special agents, route agents, mail-route messengers, postal railway clerks, local agents, and baggage-masters in service during the year ended June 30, 1869, were:

48 special agents	\$134, 342
503 route agents	494, 160
74 mail-route messengers	40, 350
324 postal railway clerks	384, 300
67 local agents	45, 090
161 baggage-masters	9, 660
Total	1, 107, 902

Full particulars of the operations of the appointment office are exhibited in the appendix.

FREE DELIVERY.

The free delivery system has been in operation during the year in forty-eight of the principal cities, with the following aggregate results:

Number of letter carriers	1, 246
Mail letters delivered	80, 071, 052
Local letters delivered	18, 380, 627
Newspapers delivered	21, 954, 898
Letters collected	89, 885, 009
Amount paid carriers, including incidental expenses....	\$1, 183, 915 31
Postage on local matter	666, 167 42

This shows an increase over last year of—

Letter carriers	48
Mail letters delivered	15, 730, 566
Local letters delivered	4, 298, 721
Newspapers delivered	5, 044, 183
Letters collected	26, 720, 384
Amount paid carriers, including incidental expenses....	\$187, 980 72
Postages on local matter	190, 185 06

The free delivery system, though rapidly improving, has not attained such a degree of efficiency as to command the universal confidence of the public. Much can yet be done to promote the celerity and precision of the collection and delivery of mail matter, and thereby commend it to popular favor. For some time to come, the attention of the department should be directed to the attainment of more thorough organization and more satisfactory results in the cities wherein the system has already been established, rather than in seeking its further extension.

DEAD LETTERS.

The number of the several classes of letters, domestic and foreign, received at the dead letter office during the last fiscal year was as follows:

Domestic letters, classed as—

Ordinary	2, 837, 472
Drop	450, 000
Unmailable	361, 984
Hotel	26, 528
Fictitious	17, 417
Registered	3, 672
Returned from foreign countries	62, 603

Total domestic letters	3, 759, 676
Foreign letters	193, 186

Whole number

3, 952, 862

Of domestic letters, 18,227 contained money amounting to \$94,710 95, in sums of one dollar and upwards. Of these, 16,187, containing

\$82,570 90, were delivered to the writers or persons addressed, and 2,040, containing \$12,140 05, were filed for reclamation by the owners or were outstanding. The number inclosing sums less than one dollar was 14,323, containing \$3,472 77, of which 11,566, containing \$2,788 29, were delivered to the writers, and 2,757, containing \$684 48, were filed for reclamation by the owners.

The number of letters containing bank checks, drafts, deeds, &c., was 16,925, of the nominal value of \$3,011,354 71, of which 15,286, of the nominal value of \$2,799,114 51, were delivered to the owners, and 1,639, of the nominal value of \$212,240 20, were outstanding or were filed for reclamation.

The number of letters and packages containing jewelry, books, and other property was 9,071, of which 6,337 were delivered and 2,734 were filed for reclamation. The number containing photographs, postage stamps, and articles of small value was 114,185, of which 103,529 were delivered and 10,656 were filed for reclamation or destroyed.

The number of letters classed as ordinary domestic, without inclosures, remailed to the writers, was 2,398,252, of which 2,003,524 were delivered and 394,728 were returned to the office and destroyed. The number of letters not signed by the writers, illegible, or containing circulars, &c., and consequently destroyed, was 1,188,693.

Of the unmailable letters, 286,307 were detained for postage, not being prepaid as required by law. They were either wholly unpaid, not prepaid one full rate, or were stamped with illegal or revenue stamps; 70,429 were misdirected, the post office, State, or some necessary part of the address being omitted; 2,678 had no address whatever, and 2,570 were addressed to places where there was no mail service.

The number of applications for dead letters was 5,763, and in 1,266 cases the letters were found and forwarded to their owners.

The amounts deposited in the treasury were:

For unclaimed dead letter money	\$14, 585 63
For proceeds of sales of waste paper	2, 067 05
Total	16, 652 68

The largely increased use of stamped envelopes bearing "return requests," that is, requests that they be returned to the writers after a stated number of days, has operated to decrease in a considerable degree the number of dead letters. While the number and value of money letters received are about the same as of those of the preceding year, the percentage of decrease in letters containing other valuables ranges as follows:

	Per cent.
Letters containing bills of exchange, drafts, checks, deeds, and other valuable papers	19 . 5
Letters containing jewelry and other property	53 .94
Letters containing articles of small value, postage stamps, photographs, &c	9 .66
Ordinary letters without inclosures	11 .92
Ordinary letters and circulars destroyed	74 .14

These figures demonstrate conclusively the great utility of the "return request" system. If generally used, the force now employed in the dead letter office could be largely reduced, if not altogether dispensed with.

The department would thus be relieved from a very heavy expense, while, at the same time, the vexation and loss to correspondents caused by the delay and uncertainty incident to the present system would be almost entirely obviated. At first it was required that there should be a formal request, printed or written on the envelope, for the return of the letter to the writer, if unclaimed. For the greater convenience of the public, it is now provided by law that any writer of a letter on which the postage is prepaid may secure a return thereof, without additional postage, after remaining uncalled for thirty days, by merely indorsing his name and address thereon. This appearing to be the simplest expedient that can be devised, compatible with safety and accuracy, the department urges its universal adoption, with a caution, however, that every writer should indorse his own address, and not trust to the business card of a hotel or firm with which he is not connected. Letters returned to one address cannot be remailed, even if the residence of the writer be known, without additional postage.

POSTAL MONEY-ORDER SYSTEM.

The whole number of money-order post offices in operation during the last fiscal year was 1,468. Two of these, Roxbury, Mass., and Fort Leavenworth, Kan., were discontinued, circumstances having rendered them unnecessary; and 219 new money-order offices were established July 12, 1869, making the present whole number 1,685.

The number of orders issued during the year was		
1,264,143, of the aggregate value of.....	\$24,848,058	93
The number paid was 1,248,874, amount-		
ing in value to.....	\$24,447,376	66
To which should be added the amount		
of orders repaid to purchasers.....	206,746	80
	<hr/>	24,654,123
		46
Excess of issues over payments.....		<hr/> <hr/> 193,935
		47

The amount received by postmasters as fees for the issue of orders was \$176,190 90. During the previous fiscal year, ended June 30, 1868, the aggregate amount of orders issued was \$16,197,858 47; of orders paid and repaid, \$16,118,537 03; and of fees, \$124,487.

It appears, upon comparison of these sums with the corresponding transactions of the last fiscal year, as above stated, that there has been an increase over the year 1868 of \$8,650,200 46, or of 53½ per cent., in the amount of issues; of \$8,535,586 43, or of 53 per cent., in the amount of payments; and of \$51,703 90, or of 41½ per cent., in the amount of fees received. The smaller percentage of increase in the fees, as compared with the issues, is to be attributed to the fact that by the act of July 27, 1868, the fees for issuing money-orders were diminished. Before that time the fee for an order not exceeding twenty dollars was ten cents, and for an order exceeding twenty dollars twenty-five cents; but by the act last mentioned the fee for an order for one dollar or any sum not exceeding twenty dollars was fixed at ten cents; for an order exceeding twenty dollars and not exceeding thirty dollars, at fifteen cents; for an order exceeding thirty dollars and not exceeding forty dollars, at twenty cents; and for an order exceeding forty dollars, at twenty-five cents. No change was made in the maximum amount for which an order can be issued, which is limited to fifty dollars.

The average amount of the money-orders issued during the last year was \$19 65; during the year 1868 it was \$19 47; and during the year 1867 it was \$19 45—showing that there has been but a slight variation in this amount for the last three years.

The tendency of capital towards the centers of trade and commerce is well illustrated by the operations of the money-order system. The smaller offices almost invariably issue more orders than they pay, while at the larger ones the payments largely exceed the issues. Upon a comparison of the money-order business in the new States with that of the older States, a like condition of things will be found to exist. For example: In California, which has 51 money-order offices, the number of money-orders issued was 30,355, amounting to \$1,034,789 54; the number paid was 8,688, amounting to \$345,574 67. In Massachusetts, which has 54 offices, the number of orders issued was 45,927, of the aggregate amount of \$963,539 25; the number paid was 142,545, amounting to \$2,270,967 45. In the city of New York, the payments during the year were \$3,062,805 32, while the issues were but \$513,290 89.

The whole number of duplicate orders for the fiscal year 1869 was 5,530. Of these, 5,461 were issued to replace originals lost in the mails or otherwise; 56 were in lieu of orders rendered invalid because not presented for payment until more than one year after date, and 13 were in lieu of orders made invalid by more than one indorsement.

During the previous year, 3,873 duplicates were issued. There has been, therefore, an increase during the last year of 1,657, or nearly 43 per cent., in the number of duplicates, which is, however, ten per cent. less than the ratio of increase in the orders issued.

The receipts and expenditures during the last fiscal year, as adjusted and reported by the Auditor, were as follows, viz:

Fees received for money-orders issued.....	\$176,190 90
Amount received for premium on drafts.....	56 97
	<hr/>
	176,247 87
Commissions to postmasters and allowances for clerk hire.....	\$101,062 19
Allowances for remittances lost in transmission by mail.....	5,797 00
Incidental expenses for stationery and fixtures.....	3,834 81
	<hr/>
	110,694 00
Excess of receipts over expenditures, being the amount of profit to the department from money-order business.....	65,553 87
	<hr/>

The sum of \$16,392,818 13, being surplus funds which had accumulated at the smaller offices in excess of what was required to meet payments, was transmitted, by means of either national bank drafts or registered packages, to first class offices used as depositories. The loss by registered packages during the year amounted to \$3,186 84, of which the sum of \$532 was allowed, before the end of the year, to postmasters who had remitted the same; the sum of \$823 84 was allowed after the close of the year, and is not, therefore, included in the present annual statement of expenditures, but will be entered in the next report; and the remaining sum of \$1,831 is covered by claims still pending. The total of allowances made during the year for lost remittances was \$5,797; but of this the sum of \$5,265 was on account of five lost remittances sent by the postmaster at Austin, Texas, to the post-

master at New Orleans, Louisiana, in the first quarter of 1868, which were stolen in the office of the latter, but credit for which was not allowed to the remitting postmaster until after the commencement of the last fiscal year. Hence this allowance constitutes a part of the expenditures of the year 1869, and is included in the above statement thereof.

In the transmission of these surplus funds in registered packages by mail, the department, in consideration of the fees received from the sale of orders, assumes the risk of loss. Such losses, however, rarely occur in any but sparsely settled localities, that have not yet entirely recovered from the effects of violence and disorder during the rebellion.

During the year, payment of six money-orders was obtained fraudulently by forgery of the payee's signature, or by means of false pretenses. In four of these cases, the amount of the order was refunded to the remitter by the issuing postmaster, in compliance with instructions from the department. In one, the postmaster who had erroneously paid the order was directed to pay a like sum to the true payee. In the remaining case, the person who improperly obtained payment of the order was compelled to pay over the amount thereof to the rightful owner.

The transfers made by postmasters from the postage to the money-order account, for the purpose of meeting orders presented for payment, amounted to \$1,326,077 41, and the transfers from the money-order to the postage account to \$1,461,078 77, leaving at the close of the year a balance in favor of the latter account of \$135,001 36.

I cannot better illustrate the great success and rapid extension of the domestic money-order system than by a presentation of its operations from its establishment on the 1st November, 1864, to the present time, a summary of which is contained in the following table:

	1865.	1866.	1867.	1868.	1869.
No. of money-order offices.....	141	473	832	1,223	1,468
Issues.....	\$1,360,122 52	\$3,977,259 24	\$9,229,397 79	\$16,197,858 47	\$24,848,056 93
Payments.....	1,313,577 08	3,903,890 22	9,071,240 73	16,118,537 03	24,654,123 46
Receipts from fees.....	11,536 40	35,803 06	70,889 57	124,503 19	176,247 57
Expenses.....	18,584 37	28,664 27	44,628 96	70,345 04	110,694 00
Deficit.....	7,047 97				
Surplus.....		7,138 79	26,260 61	54,158 15	65,553 87

The great and constant increase, from year to year, in the transactions of the money-order system, clearly indicates its utility as a safe, convenient, and expeditious mode of making small remittances, and shows that it is steadily increasing in favor with the public, as practical experience demonstrates its advantages. I regard it as thoroughly established, and recommend its universal use by the people wherever practicable.

With a view to its further efficiency, I respectfully recommend additional legislation to authorize its extension to the stations, or sub-post offices, in the large cities. This cannot be done at present, because the postmaster, who has the control and supervision of subordinate stations, is not empowered by law to issue money orders payable by himself or by his assistants. In the opinion of the department, the establishment of the money-order business at stations would be a substantial advantage, as well as a great convenience, to residents in their vicinity. They would thus be enabled to purchase orders and receive payments without being compelled to resort to the main office. They would furthermore be furnished with a convenient and secure mode of transmitting small

sums of money from one part of the city to another. This arrangement would not only tend to exclude money from local letters, but would facilitate the transaction of business at the main office, by relieving it, to some extent, of a constantly increasing crowd of applicants for the purchase or payment of orders. It has been for years in successful operation in the large cities of other countries, and there appears to be no valid reason against its introduction here.

Detailed regulations for the execution of the convention of October 12, 1867, for an exchange of postal orders between the United States and Switzerland, were finally agreed upon and signed at Washington July 2, 1869, by the Postmaster General, under the authority given by the act of July 27, 1868, and at Berne on the 26th July, 1869, by the chief of the federal post department of Switzerland. This first attempt to establish an international money-order system by this department was put into operation, by mutual agreement, on the 1st September, 1869, and, notwithstanding frequent and considerable fluctuations in the value of currency, it has been conducted without difficulty, and thus far has worked satisfactorily in all its details. The number of offices at present authorized to issue orders for sums to be remitted to Switzerland, and to pay orders for sums remitted from that country, is 150. The amount of orders remitted from this country to Switzerland from the 1st September to the 16th October was \$2,619 63, gold value, equivalent to \$3,515 97 in our currency at the time of transmission; and the amount of orders sent during the same time to the United States was \$3,191 in gold, or \$4,200 20 in currency. A copy of the convention, with the detailed regulations, and of the "instructions relative to the international system" issued to postmasters by this department, will be found in the appendix.

MISCELLANEOUS.

When I accepted at your hands the position of Postmaster General, I propounded to myself two questions: How can the postal service of the country be made most efficient? and, How can it be relieved from the heavy deficiencies annually charged against it? Knowing it to be your desire that the department should be restored to a self-sustaining condition as rapidly as a faithful discharge of its duties would permit, I have diligently sought the true answers to the above questions. As far as lay in my power, during my short administration, I have reduced the expenditures and increased the revenues of the department; but, notwithstanding my efforts, I found myself, at the end of the fiscal year, confronted with a deficit of \$5,353,620 80. Though this amount is less than the deficit provided for by appropriations, it is yet large enough to stimulate me to inquire carefully into the causes of such enormous arrears.

The principal causes operating to prevent the department from becoming self-sustaining are three, to-wit:

- 1st. The depreciation of the paper currency.
- 2d. Unpaid postages on printed matter.
- 3d. The franking privilege.

The first of these is temporary, and will, in a short time, it is hoped, cease to operate. While it continues, however, it greatly affects the proportion between the receipts and expenditures of the department. The truth of this will be admitted when it is stated that the postages are fixed by law, and remain the same nominally, no matter what may be the fluctuations in the value of the currency; while, on the other hand,

all contracts made by the department, except those for railroad transportation, are based on current rates, whatever they may be. Hence, when paper currency is depreciated, the postages are reduced in effect by the exact amount of the depreciation; so that, when gold is quoted at 133½, the single rate of letter postage is no longer three cents, but, in reality, only two-and-a-quarter cents.

Again, the department is defrauded out of a large amount of postage on newspapers by parties who, while professing to be sending out papers from known offices of publication to regular and *bona fide* subscribers, are, in fact, loading the mails with "specimen" papers and mere business circulars, disguised in the form of newspapers. The act of March 3, 1863, and the regulations made in pursuance thereof, require that all such matter, if sworn through the mailing office, shall be sent to the office of delivery, and that the postages, whether charged at newspaper rates or at letter rates by way of fine for fraud, shall be collected by the office of delivery. If not paid for and delivered, it often happens that no other disposition of this matter can be made than to return it to the mailing office for the prosecution of the offender. The double transit thus encouraged is frequently attended with no result, except that the matter is left in the office and ultimately sold for waste paper. For this mischief there is but one adequate remedy, and that is, to require prepayment on all printed matter. A due regard to the convenience of the publishers of newspapers would require that postage on newspapers should be charged according to the weight of packages. To accomplish this reform, a considerable reduction on present rates might be conceded by the department. To make the remedy of prepayment complete, it would be necessary, furthermore, to confer ample power on postmasters at mailing offices to open and inspect suspected packages of newspapers, and to impose upon them, if found to be vitiated by fraud, full letter postage, to be paid invariably in advance. This summary proceeding should not relieve the offender from liability to prosecution and punishment by the imposition of the fine already provided by law.

The foregoing are evils which, doubtless, ought to be corrected. It is possible, however, for the department to endure them, and yet retain a fair degree of efficiency. But the remaining cause of complaint has become intolerable, and must be removed, if the department is to be saved from utter demoralization. The franking privilege has grown to be an abuse so monstrous that it now threatens the very life of the service.

The post office was established in Great Britain to promote "trade and commerce." If its purpose is so comprehensive under a monarchy, how much more should it be made to contribute to the general good in a republic! Our early legislation on this subject breathes the most generous spirit throughout. The convention of 1787, seeing the impotency of the post office establishment under the confederation, and anxious to provide for the future necessities of the people, enlarged the power of Congress so as to authorize that body to establish "post routes" as well as "post offices," and thus granted to the national legislature full and absolute control over the whole subject of the mails. The United States, having assumed the exercise of the exclusive power thus conferred, designated the Post Office Department as the sole agent of government in postal matters, and, to make its authority more complete, prohibited all private individuals, under heavy penalties, from interfering with its duties. Government has thus become the trustee of the people, and has placed the Post Office Department in direct contact with the people. Under the laws establishing the department, its revenues are not drawn from the public treasury, but are collected directly from all alike, whether high or low,

rich or poor, who claim its assistance. Congress having excluded all competition by law, every principle of fair dealing requires that government shall give to the people the most ample and satisfactory recompense for the postage they are obliged to pay. The people expect, as of right they may, that the department will provide for an exchange of correspondence, and for the general dissemination of news, by the most speedy, certain, and secure means that the best and most skillful use of its revenues can procure; and when it fails to fully meet so just an expectation, it falls short of its high duty. The people should be content with no less than the best and cheapest service; and government, having undertaken the duty of providing for their wants in this respect, and prevented all others from attempting to do so, is bound to see that its agent is provided with every reasonable facility, and that no obstacle susceptible of removal shall continue to stand in the way. Government may, and should, aid the operations of its agent, but it cannot rightfully fetter or burden them. It is clear, therefore, that all special privileges, to whomsoever granted, at the expense of the postal system, are hostile to the established theory upon which that system was founded and has ever since been conducted, and that government itself cannot justly claim such privileges, unless they can be shown to be essential to the discharge of other obligations which are paramount to the duty of providing a cheap and efficient mail service. On the contrary, the enlightened opinion of the age demands that the postal service shall be administered in a spirit of the broadest beneficence, and for the equal advantage of all the people.

Holding these views as to the respective duties of government and the department, I approach the discussion of the franking privilege.

The first objection that presents itself is, that it is a special privilege granted to a favored class at the expense of the many. To this it is no sufficient answer to say that it is exercised solely in the interest of government. If the views already presented are correct, government has no right to appropriate to itself, in part or in whole, the benefits of a trust the administration of which has been committed to it for the advantage of others; and, to show that I am not singular in this opinion, I introduce the following from the admirable report, dated December 3, 1859, of my distinguished predecessor, Hon. Joseph Holt:

"There is no more reason why the Post Office Department, through its contractors, should perform this service (the conveyance of government correspondence) gratuitously for the government, than there is that the steamboats and railroad companies of the country should transport its troops, munitions of war, and stores without compensation. What shall be the character and amount of written or printed documents forwarded on behalf of the government, and under what safeguards against abuse, are questions whose solution belongs exclusively to Congress, and which it is not my purpose at present to discuss. I desire to maintain only the general proposition that whether the written and printed matter be great or small, if it be dispatched in the name and in the interest of the government and by its agents accredited for the purpose, it should be charged with precisely the same rates of postage to which it would have been subjected had it been forwarded by private citizens. The franking privilege, as accorded to various officers of the government, was from the beginning, and still is, an anomaly in the postal system, and in direct conflict with the true theory of its creation. Had this department, like the others, been placed as a charge upon the treasury, and were it essentially a political instrumentality and the property of the nation, it would be as incongruous for it to demand remuneration for its services to the government as it would be for the army and

navy to do so; but this is not and never has been its actual or theoretical status. Beyond its political authority in establishing the department and its revisory power over its administration, the relations of the government to it are precisely those of the private citizen. This has been distinctly recognized in the several acts permanently appropriating \$700,000 per annum for the transportation of 'free matter.' This is not, in the language or spirit of the act of 1836, a provision made for the support of the department from its own revenues, but is an appropriation from the public treasury, and is, in its terms, a specific compensation for the transmission of the correspondence and documents connected with the administration of the government."

At this point it may be asked, is it not better for the department that government should make good all deficiencies, rather than simply pay its own postages? To this question the answer should be an emphatic negative. It is not better that government should continue to blindly pay all deficiencies. No policy could be more unwise, both for itself and the department. It is unjust to government, because it thereby assumes to pay postages not only on its own matter, but also on all fraudulent matter that may in its name and under cover of the counterfeit franks of its officials be foisted into the mails—thus doubling the necessary expenditure. It is unjust to the department, because in so dealing with it government does not respond to its call as to the claim of a creditor who has rendered important services, and who, in consideration thereof, is entitled to demand a just compensation, but rather as to an imbecile at its gates appealing in his helplessness for charity. This is a great moral and political wrong. It reduces the department to a state of hopeless dependence, and destroys to a great extent its usefulness. It makes it the packhorse of every other branch of the public service, and compels it to assume, without a question, whatever burdens may be laid upon its back. Work as steadily and as skillfully as they may, the managers of the department know that at the end of the year their accounts must show the inevitable deficiency. Is this just? Will this encourage activity and vigilance? Will this promote economy and efficiency? When the department, with its forty thousand or more employes, has labored to discharge every duty faithfully, has carried its mails ninety-one millions of miles and distributed them according to order among forty millions of people, and, to accomplish this, has fought every inch of its way against frauds which government itself has licensed, it is at least entitled to a respectful recognition of its services, instead of being consigned to everlasting insolvency.

Turning from a subject the consideration of which discourages every man connected with the service, it may be added that there can never be an intelligent administration of the department until an accurate knowledge can be obtained of its resources and liabilities, its revenues and expenditures. This is impossible so long as the franking privilege shall be allowed to obstruct so many of the important avenues to information.

So much for the "special privilege" claimed for government.

But much more can be said in favor of extirpating this evil. The cost of "free matter" has been increasing from year to year, until at last it weighs down the department into continuous insolvency. The additional expense to which it subjects the service is counted by millions, whilst there is provided to meet it only the standing annual appropriation of \$700,000. It was stated ten years ago that the department actually expended, at that time, in the performance of the duties which the franking privilege imposed, little, if anything, short of \$3,000,000.

Since that time the expense has largely increased; and I am convinced that it now exceeds the enormous sum of \$5,000,000, of which about one-half is paid on fraudulent matter. That this is not an exaggeration will appear from an examination of the weight of mail matter sent and received at the Washington City post office from the 11th to the 31st January, 1869, as officially reported to the department. By this return it appears that the weight of free letters sent was 15,385 pounds, and of free letters received 16,995 pounds, making for twenty days 32,380 pounds. Hence an estimate for one month is 48,570 pounds, and an aggregate for one year 582,840 pounds. It appears, further, that the weight of public documents for twenty days was 207,891 pounds, making for one month 311,837 pounds, and an aggregate for one year of 3,742,044 pounds. If, therefore, the postage value of this free matter be computed at the minimum estimates of \$1 25 per pound for letters and 16 cents per pound for documents, we have a postage value for free letters of \$738,550, and for public documents \$598,727, being an aggregate of \$1,337,277, as indicated by the returns made at a period when the mails were almost entirely relieved of the burden of the heavy departmental reports. All this from the Washington City post office alone.

There is no sound reason for believing that, estimating by weight, the present basis of the postage rates, the proportion of free matter is really *less* than thirty per centum, as ascertained by the careful investigations of a committee of the British Parliament; but, even if we adopt the results of the imperfect information attainable in this country, and assume twenty-five per cent. of the ordinary annual expenditures as the just equivalent for the unpaid services of the Post Office Department, it will appear that the government is bound in honor and justice to appropriate \$5,000,000, instead of \$700,000, for this service.

But the most potential reason of all for the abolition of the franking privilege is found in the incurable abuses and frauds which seem to be inseparable from its exercise. When the number of persons who are clothed with the franking privilege, and of judges who are expected to pass upon the genuineness of franks, is considered, the opportunity for boundless frauds will appear to be almost infinite. The following statement, made up from official sources, will show how far the privilege is extended under existing laws:

Statement of officials exercising the franking privilege.

President of the United States and his secretary.....	2
Vice-President.....	1
Members of the Cabinet.....	7
United States senators.....	74
Members of Congress.....	241
Delegates in Congress.....	5
Secretary of Senate and Clerk of House of Representatives....	2
Assistant Secretaries, chief clerk, &c., State Department....	4
Assistant Attorney General and chief clerk.....	2
Assistant Secretary, Commissioners, chief clerk, &c., Interior Department.....	13
Chiefs of bureaus, chief clerk, &c., of Navy Department.....	17
Chiefs of bureaus, chief clerk, &c., of War Department.....	21

Assistant Secretaries, chief clerks, &c., of the Treasury Department.....	42
Assistant Postmasters General, superintendents of foreign mails and money-order system, and chief clerks Post Office Department.....	9
	<hr/>
	440
Add internal revenue officers, (assessors and assistant collectors and deputies).....	4,115
Postmasters on 1st November, 1869.....	27,378
	<hr/>
Total.....	31,933
	<hr/>

In this statement alone is an army of 31,933, who, generally speaking, load the mails at will with whatever matter they please. Some of them, to be sure, are granted only a limited privilege, yet, practically, the restrictions are no longer operative. To these should be added the countless host who address communications to members of Congress, delegates, the Clerk of the House of Representatives, the Secretary of the Senate, heads of departments, heads of bureaus, chief clerks, and all others authorized to frank official matter. How is it possible that any checks whatever can be imposed and enforced against a privilege so widely extended?

But the difficulties increase when it is further considered that the judges who decide upon the genuineness of franks are the entire corps of 27,378 postmasters, scattered all over the country, none of whom, with the utmost diligence, can hope to acquire a tolerable familiarity with the signatures of more than a few of the privileged. In the larger offices, where one hour is the longest time that can be allowed for making up the mails, and where it is necessary to receive and manipulate thousands of letters daily, it is impossible, even if the genuine signatures were known, to make a systematic attempt to exclude matter improperly franked. What is the result? Boundless frauds, of course, without a possibility of detecting them, or even a hope of preventing their further increase. In fact, every frank, counterfeit or genuine, is equally effective, and the extent of the evil is limited only by the wants of those who desire to impose upon the service.

It has been well said that "there is no middle ground between boundless franking and no franking." The truth of this observation will be perfectly manifest to all who will take the trouble to inquire into the subject. With the appliances now at the command of the department, or that can be devised in its interest, it would be a sheer impossibility to eliminate fraud from the exercise of the franking privilege. The privilege itself is the fruitful mother of frauds, and cannot be reformed. Estimating the frauds and evasions perpetrated under cover of this system to be equal in amount to the postages upon matter bearing genuine signatures, (and this is no exaggeration,) the total expense is swelled to an amount equal to the entire deficit of the department for the last fiscal year. Certainly, these stupendous frauds should be prevented; and, as they cannot be separated from the practice of the system, the only remedy is to abolish the system itself.

How is it possible for the department to escape from the slough into which it has been cast, so long as government fastens inextricably about its neck an ever-increasing weight? Under the frightful burden imposed by the franking privilege, no further reforms can ever be made

in the way of reducing domestic postages. An appalling deficit will be a perpetual bar to all progress—all substantial improvement.

In England, the postal service was rescued from pitiable imbecility and inefficiency by the illustrious Rowland Hill and his associates, in 1839; but it was necessary first to destroy this badge of subserviency to rank and class, although in that country it was limited both in the number of privileged persons and in the number of letters each could frank per day. So here, as the initial step to reform, I earnestly urge the total abolition of the franking privilege.

The objection that Congress may desire to print and disseminate public documents should not avail against the appeal of the department for deliverance from the frauds that are fast overwhelming it. If the privilege be abolished, official publications may still be forwarded in the mails. It is only asked that they, like all private matter, may be chargeable with postage. If it be urged that this would prevent or impede the diffusion of the knowledge of public affairs among the people, then it may be said, in reply, that if it be the purpose of Congress to give information to the people, a far more telling expedient may be resorted to. An unburdened press, managed and directed by private enterprise, can do more than Congress to enlighten the masses. Better far that the franking privilege should be abolished, and that all newspapers sent to regular and *bona fide* subscribers from a known office of publication should be carried free, without regard to weight, throughout the United States, as now throughout the country wherein printed and published. The receipts of the department for the last year from "newspapers and pamphlets" amounted to \$778,882 30. This portion of its receipts the department can forego, provided it can be protected against the frauds, more than three times in amount, inseparable from the franking privilege.

It is not proposed or desired that government officials should be personally taxed for the transmission of their public correspondence. It is asked, on the other hand, that every department, every member of Congress, and every other public officer, shall have a liberal allowance of stamps for postages, subject to a proper accountability, and that the sum necessary therefor shall be appropriated out of the general treasury.

Should Congress conform to my recommendations in this respect, I confidently predict that millions will be saved annually to the government, that the department will be at once redeemed from its present condition of chronic bankruptcy, and that the postal service will speedily become the potent coadjutor of the people in developing and adorning our great country.

My predecessor addressed to the Speaker of the House of Representatives a letter, under date of 9th January last, in relation to the postal telegraph, inclosing an elaborate communication on the same subject from Gardiner G. Hubbard, esq., of Boston. This is a subject of great importance, and deserves the most careful consideration. Several European nations have adopted the system with apparent success. I shall defer making any recommendation concerning it until a greater degree of efficiency can be attained in the service as at present constituted.

The commission heretofore appointed by Congress has submitted to me a codification of the statutes relating to the postal service, which has been referred to a committee of competent gentlemen of long experience in the practical working of the department for careful revision. Their report will be presented to Congress at an early day. The codification, when perfected and adopted by Congress, will greatly facilitate the public business.

Regarding the present as a favorable opportunity, I call the attention of Congress to the penal laws providing for the punishment of offenses against the postal service. The penalties prescribed are in many cases too severe, and, by reason of their apparent harshness, have tended to create a sympathy in the minds of jurors and others in behalf of this class of offenders. Experience has shown that the certainty of punishment, more than its severity, deters from crime. I recommend that the terms of imprisonment in most cases be shortened and graduated, with a more careful regard to the nature and character of the offenses which the framers of the laws designed to punish and prevent.

A reorganization of the department has become a necessity. The recommendation of my predecessor in that regard is cordially approved.

It would be unjust to close this report without making a proper recognition of the important services of the heads of the respective bureaus of the department, including the superintendents of foreign mails and of the money-order office. They are all gentlemen of singular fitness for their several positions. In all things they have come up to the full measure of my expectations, and I esteem myself most fortunate in having secured their valuable aid. In consideration of the ability, integrity, industry, and zeal they have continually exhibited, I earnestly recommend such an increase in their salaries as will afford them the means of a respectable livelihood, their present compensation being inadequate for that purpose.

I have the honor to be, with great respect, your obedient servant,

JNO. A. J. CRESWELL,

Postmaster General.

The PRESIDENT.

APPENDIX.

No. 1.—*Estimates for expenditures (out of the revenue) for the fiscal year ending June 30, 1871.*

For inland mail transportation, including sea mail to California, and pay of railway postal clerks, route agents, local agents, mail messengers, mail-route messengers, and baggage-masters in charge of through mails.....	\$13,506,893 00
For foreign mail transportation.....	480,000 00
For ship, steamboat, and way letters.....	8,200 00
For compensation to postmasters.....	5,000,000 00
For clerks for post offices.....	2,500,000 00
For payments to letter-carriers.....	1,250,000 00
For wrapping paper.....	50,000 00
For twine.....	35,000 00
For letter-balances.....	3,500 00
For compensation to blank agent and assistants.....	10,000 00
For office furniture.....	2,500 00
For advertising.....	40,000 00
For postage stamps and stamped envelopes.....	520,000 00
For mail depredations and special agents.....	125,000 00
For mail bags and mail-bag catchers.....	140,000 00
For mail locks, keys, and office stamps.....	40,000 00
For miscellaneous payments, including balances due foreign countries; preparation and publication of post-route maps; rent, light, fuel, and miscellaneous expenses of post offices; registered package envelopes; office envelopes for postmasters; services of United States marshals and attorneys, &c.....	870,000 00
For re-transfer to money-order account, being money transferred by postmasters and deposited in the treasury as postage receipts.....	1,000,000 00
Total.....	25,581,093 00

Expenditures under special appropriations to be provided from the treasury.

For mail steamship service between San Francisco, Japan, and China..	\$500,000 00
For mail steamship service between the United States and Brazil.....	150,000 00
For mail steamship service between San Francisco and the Sandwich Islands.....	75,000 00

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 2.—Statement exhibiting the receipts and expenditures, by quarters, for the fiscal year ended June 30, 1869, compared with the fiscal year ended June 30, 1868.

	Sept. 30, 1868.	Dec. 31, 1868.	Mar. 31, 1869.	June 30, 1869.	Total.	Year ended June 30, 1868.	Increase.	Decrease.
RECEIPTS.								
Letter postage	\$89,298 67	\$86,140 06	\$111,001 68	\$112,842 42	\$419,282 85	\$559,588 33		\$140,305 48
Newspapers and pamphlets	198,336 88	192,724 19	190,566 14	197,255 09	778,982 30	724,462 90	\$54,019 40	
Registered letters	453 60	350 75	210,355 16	23 40	826 15	6,159 55		5,331 50
Emoluments. (Box rent, &c.)	214,751 39	906,695 06	210,355 16	211,537 94	843,339 57	825,407 39	17,932 18	
Fines	7 50			50 00	57 50	778 60		721 10
Stamps sold.	3,546,502 18	3,668,761 38	3,919,770 09	4,036,687 71	15,171,721 36	14,066,139 64	1,105,581 72	
Dead letters. (Deposited in United States treasury.)	4,277 00		1,986 00		8,181 00	30,502 08		21,684 08
Internal revenue from postmasters	15,635 37	15,894 68	15,383 53	16,415 71	63,529 19	60,452 64	3,076 55	
Miscellaneous.	11,911 71	4,101 57	2,694 40	9,078 72	27,716 80	18,709 27	9,007 53	
Money order funds deposited	276,743 00	256,079 00	248,298 00	246,285 00	1,030,355 00	1,030,355 00		
	4,368,117 30	4,443,301 73	4,699,915 80	4,833,175 99	18,344,510 72	16,292,600 80	2,219,952 36	168,042 46
Deduct					16,292,600 80		168,042 46	
Net increase, 12.56 per cent.					2,051,909 92		2,051,909 92	
EXPENDITURES.								
Compensation to postmasters.	1,131,000 64	1,129,111 43	1,119,791 35	1,167,055 01	4,546,958 43	4,255,310 98	291,647 45	
Ship, steamboat, and way letters	2,315 74	2,010 20	1,331 41	2,418 91	8,076 35	7,914 64	161 71	
Transportation of the mails	3,218,232 70	3,617,890 44	3,327,816 55	3,321,466 46	13,485,406 15	12,647,949 61	837,456 54	
Wrapping paper	4,612 50	7,843 50	10,750 00	6,995 00	30,201 00	42,761 81		12,560 81
Office furniture	4,561 48	7,585 90	740 57	3,867 00	2,284 65	2,069 81	184 84	
Advertising.	38,639 74	15,801 80	54,997 84	3,878 09	79,565 41	36,809 01	42,657 40	
Mail bags.	8,631 79	38,103 60	26,943 87	26,502 47	130,189 68	114,961 22	15,208 46	
Blank agents and assistants.	1,942 50	1,942 50	1,977 77	1,977 50	7,840 37	7,751 12	89 15	
Mail locks, keys, and stamps.	8,631 79	7,064 89	3,065 32	3,065 77	22,767 77	12,073 30	10,694 38	
Mail depredations and special agents	34,601 96	37,745 50	33,186 77	28,407 53	134,341 76	138,905 16		4,563 38
Clerks for offices.	557,758 80	578,145 29	565,333 42	594,115 95	2,295,353 46	2,270,090 66	25,262 80	
Postage stamps and stamped envelopes.	108,298 50	113,454 92	134,742 42	136,616 77	473,212 31	391,447 37	81,724 94	
Letter carriers	289,673 99	291,691 34	300,559 47	301,990 51	1,183,915 31	996,370 77	187,544 54	
Dead letters			5 00		5 00		5 00	
Miscellaneous.	250,781 00	227,849 25	333,471 93	251,598 54	1,073,691 72	1,340,351 19		266,659 47
Account North German Union mails			60,847 09		60,847 09		60,847 09	
Account Bremen mails			40,045 07		40,045 07			58,021 78
Account French mails	57,566 90		7,198 39	30,256 99	55,020 28	76,841 91		21,821 63
Account British mails.				24,983 19	52,993 19	228,230 04		175,236 85
Account Hamburg mails						61,202 66		61,202 66
Account Prussian mails.						1,275 45		1,275 45
Account Belgian mails								
	5,679,675 64	6,079,223 65	6,013,739 24	5,925,489 97	23,698,131 50	22,730,592 65	1,584,900 88	601,362 03
Deduct					1,584,900 88		1,584,900 88	
Net increase, 4.25 per cent.					967,538 65		967,538 65	

W. H. H. TENNELLS, Third Assistant Postmaster General.

No. 3.—Statement of receipts and disbursements at treasury depositories on account, fiscal year ended June 30, 1889.

Depository.	Deposits.	Appropriation.	Aggregate accumulation.	Warrants drawn.	Balance June 30, 1888.	Transfer accounts.	
						From.	To.
Assistant treasurer United States, Boston, Mass.	\$432,940 08	\$250,000 00	\$682,940 08	\$741,161 30	\$69,911 80		
Assistant treasurer United States, Charleston, S. C.	54,103 74	225,000 00	279,103 74	298,398 63	80,266 53		
Assistant treasurer United States, New Orleans, La.	960,905 59	200,000 00	460,905 59	449,305 80	68,545 79	\$50,000 00	\$850,000 00
Assistant treasurer United States, New York, N. Y.	1,111,069 67	4,104,010 28	5,315,079 95	6,097,397 04	370,164 58		
Assistant treasurer United States, Philadelphia, Pa.	335,607 28	325,000 00	690,607 28	664,153 66	68,789 86		
Assistant treasurer United States, St. Louis, Mo.	119,195 75	400,000 00	519,195 75	535,041 17	140,011 84		50,000 00
Assistant treasurer United States, San Francisco, Cal.	1,304,888 81		1,304,888 81	384,923 35	110,613 75	900,000 00	
Assistant treasurer United States, Denver, Col.	37,103 67	132,500 00	169,603 67	214,093 74	1,018 57		50,000 00
Treasurer United States.	37,39 67			914,34 57	39 67		
Designated depository, Baltimore, Md.				299 66	500 00		
Designated depository, Buffalo, N. Y.				4,949 61			
Designated depository, Chicago, Ill.	99 15		99 15		99 15		
Designated depository, Cincinnati, Ohio.	960 50		960 50	1,146 01	181 41		
Designated depository, Mobile, Ala.	31 25		31 25	18 00	81 25		
Designated depository, Olympia, W. T.	835 08		835 08	441 43	835 08		
Designated depository, Pittsburgh, Pa.	496 45		496 45		496 45		
Designated depository, Santa Fe, N. M.							
Designated depository, St. Paul, Minn.							
First National Bank of Memphis, Tenn.	1,544 10		1,544 10		1,544 10		
First National Bank of Burlington, Vt.				1 44	18 83		
First National Bank of Dubuque, Iowa.				44 69			
First National Bank of Galveston, Texas.				58 84			
First National Bank of Nashville, Tenn.				44 00			
First National Bank of Concord, N. H.	743 48		743 48	1,007 35	305 75		
First National Bank of Portland, Oregon.				30 00			
First National Bank of Washington, D. C.					293 45		
First National Bank of Knoxville, Tenn.	25 00		25 00	638 15	25 00		
First National Bank of Richmond, Va.				177 69			
First National Bank of West Chester, Pa.				28 67			
First National Bank of Springfield, Ill.	510 81		510 81	45 00	510 81		
First National Bank of New Bern, N. C.	1,396 75		1,396 75		175 96		
First National Bank of Salem, Mass.	479 07		479 07	1,151 49	479 07		
Second National Bank of Detroit, Mich.				3,938 89	78 89		
Second National Bank of Leavenworth, Kan.	4,016 58		4,016 58		401 50		
Second National Bank of St. Paul, Minn.					136 99		
Exchange National Bank of Norfolk, Va.	196 99		196 99		136 99		
Merchants' National Bank of Savannah, Geo.				769 71			
				784 79			

* Account closed.

† Ceased to be a depository, and balance transferred to designated depository at Chicago, July 26, 1888.

‡ Balance transferred to Merchants' National Bank, same place, June 2, 1889.

No. 3.—Statement of receipts and disbursements at treasury depositories, &c.—Continued.

Depository.	Deposits.	Appropriation.	Aggregate accumulation.	Warrants drawn.	Balance June 30, 1889.	Transfer accounts.	
						From.	To.
Merchants' National Bank of West Virginia, Mt. Pleasant, West Va.*	.....	.....	.....	\$285 05	.....	.....	.....
Merchants' National Bank of Little Rock, Ark.	\$276 91	.....	\$276 91	1,564 34	\$443 00	.....	.....
Merchants' National Bank of Cleveland, Ohio	325 00	.....	325 00	381 50	47 93	.....	.....
Raleigh National Bank, Raleigh, N. C.	109 75	.....	109 75	9,133 19	109 75	.....	.....
The San Antonio National Bank, San Antonio, Texas*	.....	.....	.....	104 00	.....	.....	.....
Indianapolis National Bank of Indianapolis, Ind.*	.....	.....	.....	75 00	.....	.....	.....
Omaha National Bank, Omaha, Neb.	118 45	.....	118 45	.....	118 45	.....	.....
Central National Bank, of Boonville, Mo.	394 30	.....	394 30	.....	.....	.....	.....
National State Bank of Des Moines, Iowa	1,057 76	.....	1,057 76	.....	1,057 76	.....	.....
Grand total.....	3,693,639 06	\$5,640,510 98	9,334,149 36	9,333,958 15	922,276 90	\$650,000 00	\$650,000 00

* Account closed.

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 4.—*Depository post offices, September 30, 1869.*

Name.	Postmaster.	Name.	Postmaster.
Albany, N. Y.	M. L. Filkins.	Louisville, Ky.	Mrs. L. M. Porter.
Atlanta, Ga.	J. L. Dunning.	Lowell, Mass.	J. A. Goodwin.
Baltimore, Md.	A. W. Dennison.	Madison, Wis.	E. W. Keyes.
Bangor, Me.	Geo. Fuller.	Meadville, Pa.	D. O. Derickson.
Batavia, N. Y.	M. Taggart.	Milwaukee, Wis.	H. A. Starr.
Binghamton, N. Y.	Wm. Stewart.	Montpelier, Vt.	J. W. Clark.
Buffalo, N. Y.	Thos. Blossom.	Newark, N. J.	Wm. Ward.
Chicago, Ill.	F. A. Eastman.	New Haven, Conn.	N. D. Sperry.
Cincinnati, Ohio.	T. H. Foulde.	Olean, N. Y.	R. L. Page.
Cleveland, Ohio.	G. A. Benedict.	Ogdensburg, N. Y.	R. G. Pettibone.
Columbus, Ohio.	J. J. Wood.	Pittsburg, Pa.	J. H. McClelland.
Concord, N. H.	J. E. Larkin.	Plattsburg, N. Y.	H. S. Ransom.
Davenport, Iowa.	E. Russell.	Portland, Me.	W. Davis.
Des Moines, Iowa.	G. C. Tichenor.	Portsmouth, Ohio.	O. Wood.
Detroit, Mich.	F. W. Swift.	Providence, R. I.	E. S. Jackson.
Dover, Del.	J. B. Smith.	Quincy, Ill.	M. Piggott.
Dubuque, Iowa.	V. J. Williams.	Ripon, Wis.	D. McKercher.
Easton, Pa.	J. L. Mingle.	Rochester, N. Y.	J. W. Stebbins.
Evansville, Ind.	J. W. Foster.	Rutland, Vt.	M. G. Everts.
Fort Wayne, Ind.	J. J. Kamm.	Sandusky, Ohio.	E. B. Saddler.
Geneva, N. Y.	S. N. Anthony.	Scranton, Pa.	J. S. Blooom.
Grand Rapids, Mich.	A. B. Turner.	Springfield, Ill.	J. L. Crane.
Harrisburg, Pa.	Geo. Bergner.	Springfield, Mass.	W. Stowe.
Hartford, Conn.	E. W. Whitaker.	Steubenville, Ohio.	J. M. Reeda.
Huntsville, Ala.	G. M. L. Johnson.	Syracuse, N. Y.	G. L. Maynard.
Indianapolis, Ind.	W. R. Holloway.	Urbana, Ohio.	D. C. Hill.
Kalamazoo, Mich.	J. A. Walter.	Utica, N. Y.	C. H. Hopkins.
Keene, N. H.	T. E. Hatch.	Vincennes, Ind.	W. N. Denny.
La Fayette, Ind.	J. L. Miller.	Wheeling, W. Va.	C. J. Rawling.
Lancaster, N. H.	O. Nutter.	Williamsport, Pa.	— Lata.
Lexington, Ky.	S. W. Price.	Wooster, Ohio.	A. S. McClure.
Lima, Ohio.	C. Parmenter.	Worcester, Mass.	J. Pickett.
Leavenworth, Kan.	Mrs. K. B. Johnson.	Zanesville, Ohio.	J. J. Douglas.

Sixty-six in number.

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 5.—*Estimate of indebtedness of Post Office Department on June 30, 1869, and not yet adjusted.*

Balances to foreign countries.	\$250,000 00
Mail service under contract and recognized.	284,186 35
Mail service unrecognized.	150,000 00
	<hr/> 684,186 35 <hr/>

To meet which there is available in the treasury, being the undrawn balance of the appropriation for deficiency in fiscal year ended June 30, 1869. \$1,500,000 00

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 6.—*Postage stamps, stamped envelopes and newspaper wrappers, issued during the fiscal year ended June 30, 1869.*

POSTAGE STAMPS.

Quarter ended—	1-cent.	2-cent.	3-cent.	5-cent.	6-cent.	10-cent.
September 30, 1868...	2,814,600	14,558,400	76,486,200	168,890	-----	854,150
December 31, 1868...	3,004,200	16,405,700	80,855,700	174,960	-----	940,200
March 31, 1869.....	3,736,600	18,111,900	84,337,500	290,520	60,200	1,007,500
June 30, 1869.....	4,043,400	18,115,450	87,006,000	149,180	1,085,750	928,370
Total	13,598,800	67,191,450	328,677,400	783,480	1,145,950	3,730,180

Quarter ended—	12-cent.	15-cent.	24-cent.	30-cent.	90-cent.	Amount.
September 30, 1868...	624,800	233,240	54,850	55,890	10,880	\$2,857,456 00
December 31, 1868...	703,600	436,430	68,675	74,310	8,360	3,061,539 00
March 31, 1869.....	917,050	784,160	93,225	86,650	16,330	3,359,059 00
June 30, 1869.....	617,900	606,700	77,650	89,980	16,310	3,428,146 00
Total	3,063,350	2,059,690	294,400	306,730	52,180	12,706,290 00

STAMPED ENVELOPES.

Quarter ended—	1-cent.	2-cent.	3-cent.	6-cent.	9-cent.	10-cent.
September 30, 1868...	10,500	1,736,250	9,419,650	62,700	3,200	8,000
December 31, 1868...	16,500	1,397,250	9,067,750	33,150	2,100	8,750
March 31, 1869.....	8,000	1,869,500	11,147,400	36,200	250	4,250
June 30, 1869.....	15,500	1,534,500	9,770,400	78,350	10,100	6,750
Total	50,500	6,537,500	39,405,200	209,400	15,650	27,750

Quarter ended—	12-cent.	18-cent.	24-cent.	30-cent.	40-cent.	Newspaper wrappers.	Amount.
September 30, 1868...	1,600	600	-----	100	1,000	815,000	\$339,299 50
December 31, 1868...	1,600	-----	-----	-----	-----	698,750	317,302 50
March 31, 1869.....	3,750	-----	-----	-----	-----	1,012,750	385,216 50
June 30, 1869.....	11,100	-----	-----	-----	-----	1,058,750	352,749 00
Total	18,050	600	-----	100	1,000	3,585,250	1,404,567 50

ENVELOPES AND WRAPPERS BEARING REQUEST FOR RETURN OF UNCLAIMED LETTERS, ETC.

Quarter ended—	1-cent.	2-cent.	3-cent.	6-cent.	9-cent.	10-cent.	12-cent.	Newspaper wrappers.	Amount.
September 30, 1868...	5,000	118,500	6,739,000	15,600	500	-----	500	-----	\$205,631 00
December 31, 1868...	7,000	140,500	7,683,250	40,500	-----	500	-----	-----	235,857 50
March 31, 1869.....	7,500	162,500	8,386,000	23,500	-----	-----	-----	-----	254,135 00
June 30, 1869.....	9,000	190,500	8,269,750	16,000	1,000	-----	500	10,000	253,302 50
Total	28,500	612,000	31,078,000	92,600	1,500	500	1,000	10,000	950,926 00

NEWSPAPER AND PERIODICAL STAMPS.

Quarter ended—	5-cent.	10-cent.	25-cent.	Amount.
September 30, 1868...	15,200	45,100	15,060	\$9,035 00
December 31, 1868...	10,090	25,020	5,020	4,250 00
March 31, 1869.....	10,300	25,200	100	3,635 00
June 30, 1869.....	-----	-----	-----	-----
Total	35,420	95,320	20,180	16,348 00

RECAPITULATION.

	Whole number.	Value.
Postage stamps	420,896,540	\$12,706,220 00
Periodical stamps	150,920	16,348 00
Stamped envelopes	78,079,850	2,283,588 50
Newspaper wrappers	3,595,250	71,905 00
Total	502,722,560	15,078,061 50

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 7.—Postage stamps, stamped envelopes, and newspaper wrappers issued during the fiscal year ended June 30, 1899.

	Quarter ended Sept. 30, 1898.	Quarter ended Dec. 31, 1898.	Quarter ended Mar. 31, 1899.	Quarter ended June 30, 1899.	Total number.
POSTAGE STAMPS.					
One-cent	2,814,600	3,004,200	3,736,600	4,043,400	13,598,800
Two-cent	14,552,400	16,405,700	18,111,900	18,115,450	67,191,450
Three-cent	76,486,200	80,853,700	84,327,500	87,008,000	328,677,400
Five-cent	168,690	174,900	290,590	149,180	783,480
Six-cent .....	.....	.....	60,200	1,065,750	1,145,950
Ten-cent	854,150	940,200	1,007,500	922,270	3,730,180
Twelve-cent	694,800	703,600	917,050	817,900	3,663,350
Fifteen-cent	233,340	428,420	784,160	606,700	2,052,620
Twenty-four-cent	54,850	68,675	93,225	77,650	294,400
Thirty-cent	55,890	74,210	88,650	89,980	308,730
Ninety-cent	10,880	6,360	16,330	16,610	52,180
Total value	\$2,857,456	\$3,061,559	\$3,339,059	\$3,428,146	\$12,706,220
STAMPED ENVELOPES AND NEWSPAPER WRAPPERS.					
One-cent	10,500	16,500	8,000	15,500	50,500
Two-cent	1,736,250	1,397,250	1,969,500	1,534,500	6,537,500
Three-cent	9,419,650	9,067,750	11,147,400	9,770,400	39,405,200
Six-cent	62,700	32,150	36,200	78,350	209,400
Nine-cent	3,200	2,100	250	10,100	15,650
Ten-cent	8,000	8,750	4,250	6,750	27,750
Twelve-cent	1,600	1,600	3,750	11,100	18,050
Eighteen-cent	600	.....	.....	.....	600
Twenty-four-cent .....	.....	.....	.....	.....	.....
Thirty-cent	100	.....	.....	.....	100
Forty-cent	1,000	.....	.....	.....	1,000
Newspaper wrappers	815,000	698,750	1,012,750	1,058,750	3,585,250
Total value	\$339,299 50	\$317,302 50	\$395,216 50	\$352,749 00	\$1,404,567 50
NEWSPAPER AND PERIODICAL STAMPS.					
Five-cent	15,200	10,020	10,200	.....	35,420
Ten-cent	45,100	25,020	25,300	.....	95,320
Twenty-five-cent	15,000	5,020	100	.....	20,180
Total value	\$9,035	\$4,258	\$3,055	.....	\$16,348
STAMPED ENVELOPES BEARING RETURN REQUEST.					
One-cent	5,000	7,000	7,500	9,000	28,500
Two-cent	118,500	140,500	102,500	196,500	612,000
Three-cent	6,730,000	7,683,250	8,386,000	8,989,750	31,078,000
Six-cent	15,600	40,500	20,500	16,000	92,600
Nine-cent	500	.....	.....	1,000	1,500
Ten-cent .....	.....	500	.....	.....	500
Twelve-cent	500	.....	.....	500	1,000
Newspaper wrappers .....	.....	.....	.....	10,000	10,000
Total value	\$205,631 00	\$235,857 50	\$256,135 00	\$253,302 50	\$950,926 00

RECAPITULATION.

	Number.	Value.
Whole number of stamps, postage.....	420, 896, 540	\$12, 706, 220 00
periodical.....	150, 920	16, 348 00
	421, 047, 460	12, 722, 568 00
Whole number of stamped envelopes, plain.....	46, 263, 730	\$1, 332, 862 50
request.....	31, 814, 100	950, 736 00
	78, 079, 830	2, 283, 598 50
Whole number of newspaper wrappers.....	3, 585, 250	\$71, 905 00
	3, 585, 250	71, 905 00
Whole number and value of postage stamps, periodical stamps, plain and request envelopes, and newspaper wrappers.....	502, 722, 560	\$15, 078, 061 50

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 8.—Statement showing the increase in issue of postage stamps, stamped envelopes, and newspaper wrappers.

Description.	Fiscal year ended June 30, 1868.	Fiscal year ended June 30, 1869.	Increase per cent.
Postage stamps.....	\$11, 736, 264 00	\$12, 706, 220 00	8.26
Newspaper and periodical stamps*.....	14, 750 00	16, 348 00	10.83
Plain stamped envelopes.....	1, 285, 218 00	1, 332, 862 50	3.70
Request stamped envelopes.....	759, 590 00	950, 736 00	25.17
Newspaper wrappers.....	67, 372 00	71, 905 00	6.72
Aggregate of stamps, envelopes, and wrappers issued....	13, 863, 124 00	15, 078, 061 50	8.72

* The issue of periodical stamps was discontinued about February 1, 1869.

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 9.—General statement of postage stamps, stamped envelopes, and newspaper wrappers issued during the fiscal year, and remaining unsold in the hands of postmasters July 1, 1869.

Value of postage stamps, stamped envelopes, and newspaper wrappers unsold in the hands of postmasters on July 1, 1868.....	\$2, 626, 189 53
Value of same issued to postmasters during year ended June 30, 1869...	15, 078, 061 50
	17, 904, 251 03
Sales reported by Auditor during year ended June 30, 1869.....	15, 171, 721 36
Amount remaining unsold in hands of postmasters on July 1, 1869.....	2, 732, 529 73

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 10.—*Statement of payments under various heads charged to miscellaneous account for the fiscal year ended June 30, 1869.*

Allowances to postmasters for rent, light, fuel, and miscellaneous expenses of post offices.....	\$403, 068 13
Preparing and publishing post-route maps.....	11, 778 43
Registered package envelopes, official envelopes for postmasters and for the dead letter office.....	60, 719 75
Twine.....	28, 901 58
Fees to United States marshals.....	2, 746 87
Fees to United States attorneys.....	3, 065 30
Fees to clerks of United States courts.....	946 57
Printing and binding drafts and warrants.....	494 00
Allowances to postmasters for expenses incurred in depositing funds...	104 78
Expenses incurred in closing post office at Canaper, Indiana.....	11 50
Allowances to postmasters for expenses incurred in collecting drafts....	243 69
Expenses incurred in arresting mail robbers and recovering lost mail-bag	203 28
Allowances for telegrams, special cases.....	14 50
Allowance to postmaster St. John's, Michigan, for money stolen on night of June 11, 1866. Private resolution No. 6, approved March 3, 1869...	470 00
Expenses of Postmaster General and Second Assistant visiting New York on business of department.....	52 15
Purchase of mail-boxes.....	132 00
Internal revenue tax withheld from certain salaries.....	31 65
Investigation and legal opinion as to patent for lamp-post letter-boxes..	300 00
Stationery for Post Office Department.....	407 54
Re-transfers to money-order account, being money transferred by postmasters and deposited in the treasury as postage receipts.....	560, 000 00
	<hr/> 1, 073, 691 72 <hr/>

W. H. H. TERRELL,
Third Assistant Postmaster General.



No. 11.—Comparative statement of the disposition of dead letters during the fiscal years 1868 and 1869.

Character of letters.	1868.		1869.		Increase.		Decrease.	
	Number.	Amount or nominal value.	Number.	Amount or nominal value.	Number.	Amount or nominal value.	Number.	Amount or nominal value.
Money letters containing one dollar and upward	18,340	\$93,196 52	18,927	\$94,710 95	.....	.....	113	\$485 57
Number delivered to owners	16,061	86,038 69	16,167	87,370 80	126	.....	.....	4,067 76
Number filed for redemption and outstanding	14,679	5,321 86	17,040	12,140 05	.....	.....	239	.....
Money letters containing sums less than one dollar	14,692	3,106 83	17,392	3,473 77	941	36 09	.....	.....
Number delivered to owners	12,513	3,146 70	11,566	2,788 59	.....	.....	947	538 41
Number held for redemption	14,519	3,112 86	16,757	2,684 48	1,188	368 50	.....	.....
Letters containing bills of exchange, deeds, &c	17,750	2,699,311 89	16,095	3,011 354 71	.....	.....	.....	597,917 09
Number delivered to owners	16,750	2,643,311 02	15,968	2,790,114 51	.....	.....	1,582	448,230 11
Number filed for redemption	16,041	300,927 18	1,629	212,240 30	668	.....	.....	148,688 98
Letters containing jewelry and other property	13,944	.....	6,071	.....	.....	.....	4,963	.....
Number delivered to owners	9,011	.....	6,357	.....	.....	.....	3,574	.....
Number held for redemption	4,933	.....	2,734	.....	.....	.....	1,319	.....
Letters containing articles of small value, postage stamps, photographs, &c	195,921	114,185	114,185	.....	.....	.....	11,036	.....
Number delivered to owners	116,686	101,569	101,569	.....	.....	.....	11,137	.....
Number held for redemption	16,555	.....	16,555	.....	.....	.....	.....	.....
Ordinary letters, without inclosures	3,922,399	3,414,914	3,414,914	101	408,059	.....	.....	.....
Number filed for delivery	3,922,399	3,398,359	3,398,359	312,852	.....	.....	.....	.....
Number delivered to owners	1,762,688	2,000,524	2,000,524	940,856	.....	.....	.....	.....
Number held for delivery	2,160,153	1,384,390	1,384,390	.....	.....	.....	681,480	.....
Ordinary letters, &c., destroyed	69,559	.....	69,559	.....	.....	.....	3,955	.....
Domestic letters returned from foreign countries	194,183	.....	194,183	.....	.....	.....	.....	.....
Foreign letters returned to countries where they originated	.....	.....	.....	.....	.....	.....	.....	.....
Total	10,369,941	7,415,810 00	9,605,924	6,219,076 86	565,066	3,966 78	1,399,073	1,200,719 92

W. H. H. TERRELL,
Third Assistant Postmaster General.

No. 12.

POST OFFICE DEPARTMENT,
Contract Office, October 27, 1869.

SIR: For a statement of the mail service for the contract year ended June 30, 1869, I respectfully refer you to the tables hereto annexed:

Table A exhibits the character of the service, the length of routes, the number of miles of transportation, and the cost thereof, as it stood at the close of the contract year.

Table B exhibits the railroad service as in operation on the 30th of June, 1869; also the cost per mile in each State.

Table C exhibits the steamboat service as in operation on the 30th of June, 1869, showing the particulars of each route.

Table D shows the increase and decrease of mail transportation, and cost, in the several States and Territories, during the year ended June 30, 1869.

Table E shows the weights of the mails, the accommodations for mails and agents, the trips per week, and the rates of pay per mile per annum on railroad routes in States chiefly in which the contract term expired 30th of June, 1869.

Table F shows the readjustment of the rates of pay per mile on certain railroad routes, based upon returns of the weight of the mails conveyed and the accommodations provided for mails and agents of the department.

I have the honor to be, very respectfully, your obedient servant,

GILES A. SMITH,

Second Assistant Postmaster General.

Hon. J. A. J. CRESWELL,
Postmaster General.

A.—Table of mail service for the year ended June 30, 1869, as exhibited by the state of the arrangements at the close of the year.

[The entire service and pay are set down to the State under which they are numbered, though extending into other States, instead of being divided among the States in which each portion lies.]

States and Territories.	Length of routes.	Annual transportation and cost.						Total annual trans- portation by color- ity, certainty, and security.	Total annual trans- portation by steam- boat.	Total annual trans- portation by rail- road.	Total annual trans- portation.	Dollars.
		By steamboat.			By railroad.							
		Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.					
Maine.....	4,498	3,921	71,540	571	56,549	1,577,754	56,549	1,577,754	418,980	1,996,614	128,069	
New Hampshire.....	1,916	1,300	27,517	423	37,465	549,173	37,465	549,173	377,268	946,156	66,132	
Vermont.....	9,319	1,706	35,196	513	67,893	811,493	67,893	811,493	444,093	1,955,574	103,088	
Massachusetts.....	9,638	1,076	42,350	1,498	909,861	791,386	909,861	791,386	1,693,465	3,004,163	256,186	
Rhode Island.....	1,328	948	6,091	1,130	19,317	110,940	19,317	110,940	1,198,280	2,409,374	37,808	
Connecticut.....	1,649	673	94,773	776	107,303	458,016	107,303	458,016	949,298	1,307,244	132,076	
New York.....	17,110	7,474	902,171	3,344	504,907	3,335,618	504,907	3,335,618	4,798,739	8,708,069	884,241	
New Jersey.....	9,106	1,143	37,698	3,863	117,149	540,956	117,149	540,956	1,181,939	1,784,671	138,644	
Pennsylvania.....	13,499	10,623	525,939	9,793	258,787	2,462,697	258,787	2,462,697	4,102,689	7,934,042	501,068	
Delaware.....	3,505	306	9,680	199	115,030	148,640	115,030	148,640	238,262	390,532	34,650	
Maryland.....	3,957	238	57,928	779	179,438	803,795	179,438	803,795	1,417,617	2,353,892	238,100	
Ohio.....	11,593	6,994	132,665	4,418	574,550	147,054	101,400	147,054	4,700,593	6,946,046	715,685	
West Virginia.....	4,417	4,025	49,911	1,142	17,840	156,312	156,312	156,312	88,990	945,932	75,900	
Virginia.....	8,719	6,789	116,456	1,406	116,613	461,794	281,334	461,794	1,073,137	2,151,185	266,893	
North Carolina.....	6,673	5,533	75,907	913	62,925	1,892,398	59,694	1,892,398	657,379	1,602,384	141,649	
South Carolina.....	3,194	1,964	57,801	1,144	96,005	371,414	8,944	371,414	1,097,119	1,307,477	125,730	
Georgia.....	4,003	3,598	45,975	1,491	115,814	425,568	60,736	425,568	1,177,201	1,603,595	170,468	
Florida.....	5,965	1,773	34,017	3,190	111,000	393,393	393,393	393,393	273,528	766,786	174,007	
Michigan.....	9,069	5,843	113,836	1,512	145,689	1,677,889	366,782	1,677,889	1,443,598	2,486,367	286,733	
Indiana.....	7,151	5,303	77,848	1,849	294,200	1,277,754	.....	1,277,754	1,843,748	2,961,496	302,048
Illinois.....	9,888	6,063	137,148	3,296	402,364	2,009,398	.....	2,009,398	2,484,149	3,503,416	539,519
Wisconsin.....	7,775	6,998	100,469	1,998	196,050	939,800	91,130	939,800	1,977,463	2,866,115	329,099	
Iowa.....	8,296	7,491	138,618	1,835	49,698	1,960,390	.....	1,960,390	1,618,668	2,866,463	186,316
Missouri.....	9,465	7,856	146,335	1,407	183,411	1,949,773	144,769	1,949,773	1,349,514	2,444,055	339,746	
Minnesota.....	6,673	5,791	109,068	370	16,367	1,924,528	134,680	1,924,528	610,315	1,969,239	171,915	
Kentucky.....	6,490	4,948	68,299	868	69,306	69,795	425,473	69,795	498,901	2,853,461	196,593	
Tennessee.....	5,309	4,163	62,960	1,146	89,306	749,994	.....	749,994	686,403	1,631,397	151,575
Alabama.....	6,597	5,073	110,563	1,445	99,300	866,400	156,526	866,400	653,046	1,677,384	228,841	
Mississippi.....	3,855	2,863	66,109	.....	.....	535,444	.....	535,444	619,396	1,154,730	137,909
Arkansas.....	7,178	6,363	167,785	887	33,000	1,443,194	178,016	1,443,194	1,069,198	2,513,385	311,535	
Louisiana.....	4,076	3,399	91,075	1,941	104,500	1,553,030	119,544	1,553,030	1,346,573	2,901,605	368,783	
Texas.....	11,141	8,991	244,500	449	64,500	2,096,150	206,500	2,096,150	2,607,643	4,698,243	598,099	
California.....	7,364	5,144	114,693	775	134,525	1,096,150	.....	1,096,150	967,643	2,065,319	273,356

Oregon	1,294	975	96,733	319	93,500	545	77,830	137,956	183,598	691,696	983,484	49,313
Kansas	4,019	3,474	242,060	.....	.....	.....	.....	1,300,522	.....	.....	1,937,968	330,010
Nebraska	1,730	1,730	300,466	.....	.....	.....	.....	800,539	.....	.....	793,390	300,466
Nebraska	9,540	1,456	38,566	.....	.....	1,084	378,600	445,494	.....	1,353,531	1,793,343	317,988
New Mexico Territory	1,506	1,506	317,292	.....	.....	.....	.....	598,944	.....	.....	598,944	317,292
Utah Territory	1,215	1,315	47,677	.....	.....	.....	.....	978,408	.....	.....	978,408	47,677
Washington Territory	1,618	1,953	99,009	365	15,900	.....	.....	949,549	37,960	.....	987,508	114,869
Colorado Territory	1,189	1,189	36,545	.....	.....	.....	.....	196,359	.....	.....	196,359	36,545
Dakota Territory	489	489	8,646	.....	.....	.....	.....	100,304	.....	.....	100,304	8,646
Arizona Territory	1,390	1,390	142,568	.....	.....	.....	.....	970,400	.....	.....	970,400	142,568
Idaho Territory	599	599	63,300	.....	.....	.....	.....	985,890	.....	.....	985,890	63,300
Idaho Territory	1,047	1,047	88,454	.....	.....	.....	.....	314,184	.....	.....	314,184	88,454
Montana Territory .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	923,731	163,415	4,908,265	30,779	774,536	39,537	4,783,680	44,993,106	4,331,011	41,399,364	90,723,403	10,406,501
Route agents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Postal railway clerks .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mail-route messengers .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Local agents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mail messengers .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baggage-masters in charge of mails .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,569
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,681,738

* Embraces the steamship service from New York via Panama to San Francisco, Cal., heretofore set down to California.

† The Philadelphia, Wilmington, and Baltimore railroad is under a Maryland number.

‡ This includes steamboat service from Louisville to Cincinnati, Ohio; and from Evansville, Ind., to Cairo, Ill.

GILES A. SMITH,

Second Assistant Postmaster General.

B.—Railroad service as in operation on June 30, 1869.

Number of route.	Termini.	Corporate title of company carrying the mail.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Annual cost per mile on each route.	Remarks.
	MAINE.		Miles.	Miles.		Dollars.	Dollars.	Dollars.	
1	Angusta to Kennebec.	Portland and Kennebec.	30	.....	6	3,800 00	.....	125 00	
8	Danville to Bangor.	Maine Central.	110	.....	6	13,750 00	.....	50 00	
19	Farmington to Brunswick.	Androscoggin.	70½	.....	6	3,537 50	.....	50 00	
63	Calais to Princeton.	Lewy's Island.	23	.....	6	3,550 00	.....	95 00	
113	Portland to Portsmouth.	Portland, Seaco, and Portsmouth.	52	.....	12	7,827 50	.....	150 72	
114	Portland to Augusta, with branch to Bath.	Portland and Kennebec.	73	.....	12	7,300 00	.....	100 00	
115	Portland to Canada Line.	Grand Trunk.	48	.....	12	17,700 00	.....	125 00	
116	Portland to Bar Mills.	York and Cumberland.	117	.....	6	1,000 00	.....	100 00	
161	Mechanic's Falls to Hartford.	Portland and Oxford Central.	21½	.....	6	974 60	.....	55 55	
	NEW HAMPSHIRE.			57½		56,549 60	.....	45 33	
251	Concord to Nashua.	Concord.	36	.....	12	5,400 00	.....	150 00	
253	Concord to Wells River.	Boston, Concord and Montreal.	93	.....	6	10,000 00	.....	107 52	
254	Concord to White River Junction.	Northern.	62	.....	12	11,160 00	.....	140 00	
	Branch to Bristol.		13	.....	6	1,500 00	.....	57 69	
255	Concord to Bradford.	Concord and Claremont.	24	.....	6	3,000 00	.....	50 00	
268	Concord to Portsmouth.	Concord, Manchester and Lawrence.	60	.....	12	1,025 00	.....	50 00	
269	Manchester to North Ware.	Boston, Concord and Lowell.	20½	.....	6	1,900 00	.....	56 25	
270	Manchester to Wilton.	Boston and Lowell, and Nashua and Lowell.	16	.....	12	900 00	.....	50 00	
300	Cantoncook Village to Hillsboro Bridge.	Cantoncook.	15	.....	6	750 00	.....	50 00	
309	Dover to Alton Bay.	Boston and Maine.	28	.....	6	1,400 00	.....	50 00	
310	Brock & Crossing to Union.	Portsmouth, Great Falls and Conway.	26	.....	6	1,300 00	.....	50 00	
331	Littleton to Wells River.	Boston, Concord and Montreal.	21	.....	6	1,050 00	.....	50 00	
	VERMONT.			45½		37,465 00	.....	
412	Burlington to Rouse's Point.	Vermont Central, and Vermont and Canada.	55½	.....	12	8,325 00	.....	150 00	
429	White River Junction to North Derby.	Connecticut and Passumpsic Rivers.	111.17	6	11,117 00	100 00	

Includes \$650 for aide service.

REPORT OF THE POSTMASTER GENERAL.

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Line No.	Route	Stations	Distance	Rate	Notes
463	Windsor to Burlington	Vermont Central	11 1/2	16, 650 00	
477	Rutland to State Lake, with branch to Bennington	Rutland and Burlington	36	5, 900 00	
483	Bellows Falls to Windsor	Sullivan	25	3, 125 00	
484	Bellows Falls to Burlington	Rutland and Burlington	59	19, 405 00	
489	Battleboro to Bellows Falls	Vermont Valley	54	5, 380 00	
			513.17	67, 892 00	
MASSACHUSETTS.					
801	Boston to Portsmouth	Eastern	50 1/2	11, 300 00	
609	Boston to Berwick Junction	Boston and Maine	75	11, 400 00	
603	Boston to Great Falls	Boston and Lowell, and Nashua and Lowell	49	6, 300 00	
604	Boston to Fitchburg	Fitchburg	52	8, 000 00	
605a	Boston to Worcester	Boston and Worcester	45	16, 875 00	
606	Grafton Depot to Millbury	do.	4 20	200 00	
607	Boston to Wrentham	do.	39 1/2	1, 984 00	
608	Boston to Southbridge	Boston, Hartford and Erie	70	5, 914 00	
609	Boston to Providence	Boston and Providence	44	8, 910 00	
610	Boston to Plymouth	Old Colony and Newport	37 1/2	5, 400 00	
611	Boston to Medford	Boston and Maine	54	5, 275 00	
612	Boston to Charlestown	Metropolitan	1 1/2	600 00	
613	Boston to Watertown	Union	3 1/2	1, 200 00	
614	Boston to Jamaica Plains	Metropolitan	3 1/2	1, 420 00	
615	Boston to Mattapan	Old Colony and Newport	8 1/2	450 00	
616	Boston to West Lynn Depot	Eastern	10	500 00	
617	Boston to Dedham	Boston and Providence	11	530 00	
619	Salem to Gloucester	Eastern	16	800 00	
620	Salem to Marblehead	do.	4	200 00	
627	Lawrence to Manchester	Concord, Manchester and Lawrence and Lowell	28	2, 800 00	
629	Lowell to Lawrence	Boston and Lowell, and Nashua and Lowell	14	1, 050 00	
631	Winchester to Woburn	do.	3	150 00	
632	Porter's Station to Lexington	Lexington and West Cambridge	8	409 00	
633	Lexington Depot to Bedford	do.	4	165 00	
635	South Acton Depot to Hudson	Fitchburg	9	500 00	
636	Groton Junction to Lowell	Boston and Lowell, and Nashua and Lowell	17	1, 100 00	
637	Groton Junction to Mason Village	Fitchburg	23	1, 500 00	
638	Auburndale Station to Newton Lower Falls	Boston and Worcester	2	100 00	
639	Natick to Saxonville	do.	4	900 00	
640	South Framingham to Northboro	Boston, Clinton and Fitchburg	15	1, 125 00	
640a	Northboro to Pratt's Junction	do.	14	1, 050 00	
641	South Framingham to Milford	Boston and Worcester	12	900 00	
651	Canton Depot to North Easton	Stoughton and Easton Branch	4 1/2	430 00	

B.—Railroad service as in operation on June 30, 1869—Continued.

Number of route.	Terminal.	Corporate title of company carrying the mail.	Distance. Miles.	Total distance in each State.	Number of trips per week.	Annual pay. Dollars.	Annual pay in each State. Dollars.	Annual cost per mile on each route.	Remarks.
MASSACHUSETTS—Continued.									
655	South Braintree Junction to Newport	Old Colony and Newport.....	61½	12	7,498 00	Dollars. 121 42	\$1,000 for side service, and \$200 for an additional mail to South Yarmouth and Harwich Port.
656	South Abington to Bridgewater.....	do.	12	.....	6	1,300 00	.....	38 70
657	Braintree Depot to Cohasset.....	do.	12	.....	12	1,350 00	.....	112 50
664	Middleboro to Hyannis.....	Cape Cod.....	47	.....	12	5,500 00	.....	117 00
675	New Bedford to West Wareham.....	New Bedford and Taunton.....	16½	.....	12	2,031 25	.....	125 00
679	Taunton to Middleboro.....	Middleboro and Taunton.....	9½	.....	6	600 00	.....	63 16
680	Taunton to Massfield Junction.....	Taunton Branch.....	12	.....	19	1,800 00	.....	150 00
681	Taunton to New Bedford.....	New Bedford and Taunton.....	20½	.....	19	3,075 00	.....	150 00
687	Worcester to Nashua.....	Worcester and Nashua.....	40½	.....	6	4,625 00	.....	100 00
688	Worcester to Albany.....	Western.....	56	.....	18	51,600 00	.....	375 00
692	Sterling Junction to Fitchburg.....	Fitchburg and Worcester.....	102	.....	12	1,400 00	.....	100 00
697	Fitchburg to Bellows Falls.....	Cheshire.....	14	.....	12	7,500 00	.....	117 18
694	Fitchburg to Brattleboro, with branch to Hoosac Tunnel.	Vermont and Massachusetts.....	64	.....	6	10,800 00	.....	100 00
700	Palmer to Groot's Corner.....	New London Northern.....	35	.....	6	2,625 00	.....	75 00
706	Springfield to South Vernon Junction.	Connecticut River.....	50	.....	12	6,250 00	.....	125 00
707	South Vernon Junction to Keene.....	Cheshire.....	94	.....	6	1,200 00	.....	50 00
708	Chicopee to Chicopee Falls.....	Connecticut River.....	2	.....	12	100 00	.....	50 00
725	Pittsfield to North Adams.....	Pittsfield and North Adams.....	21	.....	6	1,575 00	.....	75 00
729	Yarmouth to Orleans.....	Cape Cod.....	19	.....	12	4,000 00	.....	100 00
737	Gloucester to Pigeon Cove.....	Eastern.....	6½	.....	6	450 00	.....	62 52
739	Salem to Lawrence.....	Eastern.....	20	.....	6	1,000 00	.....	50 00
740	Walden to Newburyport.....	Boston and Maine.....	30½	.....	6	1,325 00	.....	50 00
				1,487 15-16			200,661 25		
RHODE ISLAND.									
801	Providence to Worcester.....	Providence and Worcester.....	44	12	5,000 00	124 00	
802	Providence to New London.....	New York, Providence and Boston.....	63½	.....	19	12,115 50	.....	120 00
803	Providence to Bristol.....	Providence, Warren and Bristol.....	15½	.....	6	435 00	.....	53 16
804	Warren to Fall River.....	Fall River, Warren and Providence.....	7	.....	12	350 00	.....	50 00
				1203			10,217 50		

REPORT OF THE POSTMASTER GENERAL.

No.	Line	Miles	Rate per annum
996	New London to Worcester.....	73	110 00
997	New London to Palmer.....	30	85 83
998	New London Northern.....	12	75 00
999	Hartford and New Haven.....	12	100 00
1000	New Haven and New London.....	12	1,000 00
1001	Hartford and New Haven.....	12	10,067 00
1002	New Haven to Springfield.....	12	20,445 83
1003	Grauly to Northampton.....	12	2,400 00
1004	New Haven to Danbury, with branch to Collinsville.....	12	4,075 00
1005	New York and New Haven.....	19	38,825 00
1006	Naugatuck.....	12	4,650 00
1007	Housatonic.....	6	7,186 00
1008	Danbury and Norwalk.....	6	2,000 00
1009	New Canaan.....	12	500 00
1010	Stamford to Ridgefield.....	2	12,250 00
1011	Hartford, Providence and Fishkill Rockville.....	18	500 00
1012	Erie.....	25	198,175 00
1013	Hudson River.....	19	52,500 00
1014	New York and Harlem.....	25	13,050 00
1015	Flushing.....	12	1,600 00
1016	Staton Island.....	12	1,400 00
1017	Long Island.....	12	11,650 00
1018	Long Island.....	6	750 00
1019	Long Island.....	12	1,250 00
1020	Erie.....	6	772 00
1021	Erie.....	6	814 00
1022	Hartford and Boston.....	12	1,750 00
1023	New York Central.....	25	89,400 00
1024	Rensselaer and Saratoga.....	12	1,089 00
1025	Albany and Schoharie.....	12	1,089 00
1026	Schoharie Valley.....	12	10,650 00
1027	Rensselaer and Saratoga.....	12	250 00
1028	Rensselaer and Saratoga.....	12	800 00
1029	New York Central.....	12	1,650 00
1030	Troy and Boston.....	18	7,350 00
1031	Branch to North Bennington.....	12	4,921 50
1032	Troy to Saratoga Springs.....	12	9,375 00
1033	Eagle Bridge to Rutland.....	12	8,100 00
1034	Saratoga Springs to Castleton.....	12	966 00
1035	Plattsburg to Canada Line.....	6	10,710 00
1036	Bessemer Point to Ogdensburg.....	12	42 87
1037	Bessemer Point to Ogdensburg.....	12	90 00

REPORT OF THE POSTMASTER GENERAL.

B.—Railroad service as in operation on June 30, 1899—Continued.

Number of route.	Terminal.	Corporate title of company carrying the mail.	Distance. <i>Miles.</i>	Total distance in each State.	Number of trips per week.	Annual pay. <i>Dollars.</i>	Annual pay in each State. <i>Dollars.</i>	Annual cost per mile on each route.	Remarks.
NEW YORK—Continued.									
1138	Rome's Point to Canada Line.	Champlain and St. Lawrence	32		6	992 50		<i>Dollars.</i>	
1139	Watertown to Cape Vincent.	Rome, Watertown and Ogdensburg	96		12	2,600 00		116 66	
1206	Utica to Lowville.	Utica and Black River	59		6	2,950 00		109 00	
1212	Rome to Ogdensburg		142		12	16,700 00		50 00	
1235	Branch to Potsdam Junction.	Rome, Watertown and Ogdensburg.	95		12			100 00	
1234	Syracuse to Rochester	New York Central	104		12	20,800 00		900 00	
1236	Syracuse to Binghamton	Syracuse and Binghamton.	80		12	6,000 00		75 00	
1238	Syracuse to Oswego.	Oswego and Syracuse	32		12	3,550 00		100 00	
1242	Skaneateles Junction to Skaneateles.	Skaneateles.	54		12	294 00		49 73	
1277	Canandaigua to Niagara Falls.	New York Central	50		12	6,100 00		62 89	
1278	Canandaigua to Elmira.	Northern Central.	47		6			73 00	
1282	Rochester to Niagara Falls	New York Central.	64		12	5,137 50		250 00	
1283	Rochester to Avon.	Erie	76		12	19,000 00		44 44	
1286	Avon to Mount Morris.	Buffalo, New York and Erie	10		12	800 00		50 00	
1290	Suspension Bridge to Detroit.	Great Western (of Canada)	229		6	11,450 00		50 00	
1321	Buffalo to Corning	Erie	142		12	8,520 00		60 00	
1322	Buffalo to Lockport.	New York Central.	92		12	1,100 00		50 00	
1323	Buffalo to Lewiston.	"do	99		12	1,450 00		50 00	
1324	Attica to Hornellsville.	Erie	60		6	3,400 00		56 67	
1325	Buffalo to Erie.	Buffalo and Erie	89		19	22,250 00		250 00	
1327	Owego to Ithaca.	Delaware, Lackawanna and West'n.	33		12	1,415 00		43 88	
1460	Chesterville to Warwick.	Warwick Valley	11		12	350 00		50 00	
1467	Owego to Richland	Rome, Watertown and Ogdensburg.	94		12	2,850 00		109 00	
1469	Brocton to Corry.	Buffalo and Oil Creek Cross Cut.	45 3		12	3,693 50		79 54	
1513	New York to Sayville.	South Side.	49		12	3,000 00		61 23	
1514	Goshen to Monticuary	Montgomery and Erie.	10		6	300 00		30 00	
1518	Buffalo to East Aurora.	Buffalo and Washington.	17 74		6	887 00		50 00	
1519	Schoharie to Middleburg	Middleburg and Schoharie.	54	3,344 10	12	275 00		50 00	
NEW JERSEY.									
1002	New York to Piermont.	Northern Railroad of New Jersey.	94 1/2		6	2,081 00		76 52	
1003	New York to Hackensack.	Hackensack and New York.	13		12	750 00		50 00	
							504,907 00		Includes side service. Includes \$906 for side service. Includes side service.
									Includes side service.

[illegible]

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B.—Railroad service as in operation on June 30, 1899—Continued.

Number of route.	Termini.	Corporate title of company carrying the mail.	Distance. Miles.	Total distance in each State.	Number of trips per week.	Annual pay. Dollars.	Annual pay in each State. Dollars.	Annual cost per mile on each route. Dollars.	Remarks.
PENNSYLVANIA—Continued.									
1816	Hazleton to Junction	Lehigh Valley, (lessees)	5.5-8	.....	6	423 33	.....	40 00	
	Branch to Eckley		34	.....	6	.....	.....	.....
1817	Branch to Jeddo		14	.....	6	6,007 50	.....	75 00	
1818	Scranton to Northumberland.		80.1	.....	12	850 00	.....	50 00	
	Scranton to Carbondale	Delaware and Hudson Canal and Railroad.	17	.....	12	.....	.....	.....
1819	Great Bend to New Hampton		130.4	.....	6	9,780 00	.....	75 00	
	Bluesburg to Corning	Toga	40	.....	12	.....	.....	.....
1820	Branch to Fall Brook		7	.....	12	3,925 00	.....	75 00	
	Branch to Morris Run		4	.....	6	.....	.....	.....
	Branch to Arnot		4	.....	6	7,800 00	.....	100 00	
1821	Williamsport to Elmira	Northern Central, (lessees)	78	.....	12	.....	.....	.....
1822	Sunbury to Erie	Pennsylvania, (lessees)	248	.....	18	94,600 00	.....	75 00	
1823	Sunbury to Mount Carmel	Northern Central, (lessees)	40	.....	6	1,400 00	.....	50 00	
1824	Alton to Carrollton	Erie, (lessees)	25	.....	6	1,250 00	.....	50 00	
1825	Shawmut Junction to Shawmut	Shawmut Coal Company	14	.....	6	100 00	.....	7 14	
1826	Irwin to Cory	Oil Creek and Alleghany River	26.8	.....	12	5,400 00	.....	75 00	
		Herr & Co	67.8	.....	6	.....	.....	.....
1827	Strausburg to Leaman Place	Pennsylvania	5	.....	6	250 00	.....	50 00	
1828	Launcaster to Middletown	Schuylkill and Susquehanna	31.3	.....	6	9,347 50	.....	75 00	
1829	Harriburg to Anburn	.....	59	.....	12	1,980 00	.....	30 00	
	Branch to Tremont	.....	7	.....	6	.....	.....	.....
1830	Harriburg to Hagerstown	Cumberland Valley	53	.....	12	6,300 00	.....	100 00	
1831	Columbia to Sinking Springs	Reading & Columbia	39.49	.....	6	1,424 70	.....	50 00	
1832	Branch to Lancaster	Northern Central	8	.....	6	700 00	.....	50 00	
1833	York to Columbia	Hanover Branch	14	.....	12	1,020 00	.....	50 00	
1834	Hanover Junction to Littlestown	Gettysburg	20.4	.....	12	875 00	.....	50 00	
1835	Hanover to Gettysburg	Huntingdon and Broad Top	17.5	.....	6	2,466 00	.....	50 00	
1836	Huntingdon to Mount Dallas, with branch to Broad Top	Tyone and Clearfield, (Pennsylvania lessees)	49.32	.....	6	.....	.....	.....
1837	Tyone to Clearfield	Pennsylvania, (lessees)	40.73	.....	6	2,036 50	.....	50 00	
1838	Altoona to Hollidaysburg and Newry	Pennsylvania, (lessees)	10.77	.....	7	538 50	.....	50 00	

1830	Groesven to Ebanburg.....do.....	11, 30	565 00	50 00	\$377 for mail messenger ser- vice included.
1831	Tyone to Lock Haven.....do.....	6	2, 140 00	50 00	
1840	Blairsville to Pittsburg.....do.....	6	1, 977 00	50 00	
1841	Washington to Wheeling.....do.....	33	3, 600 00	50 00	
1842	Pittsburg to Uniontown.....do.....	72	6, 570 00	50 00	
1843	Pittsburg to Latonia.....do.....	131, 4	950 00	50 00	
1844	Branch Junction to Indiana.....do.....	19	1, 814 50	50 00	
1845	Meadville to Oil City.....do.....	36, 29	1, 125 00	75 00	
1846	Newcastle to Homewood.....do.....	15	6, 225 00	75 00	
1849	Miles Grove to Newcastie.....do.....	83	1, 000 00	50 00	
1850	Towanda to Waverly.....do.....	20			
1852					
1853	Jamestown to Franklin.....do.....	42	2, 100 00	50 00	
1854	Bethlehem to Chapman Quarry.....do.....	15	750 00	50 00	
1854	Herndon to Trevorton.....do.....	14	600 00	42 85	
19047		9, 793½	258, 787 28		
DELAWARE.					
18801	Wilmington to Crisfield.....do.....	18	12, 812 50	{ 125 00	Includes \$1, 400 for mail be- tween Philadelphia and Wilmington.
18802	Harrington to Georgetown.....do.....	12	1, 217 50	{ 62 50	
18803	Clayton to Easton.....do.....	6	1, 000 00	{ 50 00	
		199, 28	15, 030 00	25 00	
MARYLAND.					
19001	Baltimore to Philadelphia.....do.....	31	37, 700 00	{ 375 00	
19002	Branch to Fort Deposit.....do.....	25		{ 375 00	
19003	Baltimore to Sunbury.....do.....	6		{ 50 00	
19004	Baltimore to Washington.....do.....	25	25, 345 00	{ 200 00	
19005	Baltimore to Wheeling.....do.....	14		{ 150 00	
19006	Araby to Frederick.....do.....	28	15, 000 00	{ 375 00	
19007	Intersection to Middleburg.....do.....	40		{ 247 10	
19008	Annapolis to Junction.....do.....	13	93, 900 00	{ 947 10	
19009	Salisbury to Berlin.....do.....	6	300 00	{ 100 00	
19010	Waverton to Hagerstown.....do.....	3	2, 215 00	{ 50 00	
		443	2, 000 00	{ 100 00	
		93	1, 150 00	{ 50 00	
		24½	1, 818 75	{ 75 00	
OHIO.					
9001	Ball Air to Columbus.....do.....	14	27, 575 00	900 00	
9002	Pittsburg to Chicago.....do.....	12	93, 900 00	900 00	
9003	Cleveland and Pittsburg.....do.....	18	7, 125 00	75 00	
9004	Lake Shore.....do.....	13	21, 600 00	225 00	
9005	Hudson to Millersburg.....do.....	6	3, 100 00	50 00	
9006	Cleveland to Youngstown.....do.....	6	3, 350 00	50 00	
9007	Cleveland to Wellsville.....do.....	18	13, 087 50	150 00	
		19½		100 00	

B.—Railroad service *as in operation on June 30, 1869*—Continued.

Number of route.	Terminal.	Corporate title of company carrying the mail.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Annual cost per mile on each route.	Remarks.
			<i>Miles.</i>	<i>Miles.</i>		<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	
	Ohio—Continued.								
9008	Cleveland to Sandusky	Lake Shore	61		6	3,050 00		50 00	
9009	Bayard to New Philadelphia	Cleveland and Pittsburgh	39		6	1,372 00		42 87	
9010	Oneida Mills to Carrollton	Carrollton and Oneida	13		6	1,500 00		41 66	
9011	Sandusky to Newark	Sandusky, Mansfield and Newark	116		6	11,600 00		100 00	
9012	Xenia to Dayton	Columbus and Xenia	17		12	1,275 00		75 00	
9013	Dayton to Sandusky	Cincinnati, Sandusky and Cleveland	156		12	19,500 00		125 00	
9014	Springfield to Delaware	Cleveland, Columbus and Cincinnati	50		6	2,143 00		42 86	
9015	Columbus to Cleveland	Cleveland, Columbus, Cincinnati and Indianapolis	138		24	24,150 00		175 00	
9016	Columbus to Xenia	Columbus and Xenia	55		13	12,375 00		225 00	
9017	Columbus to Indianapolis	Columbus, Chicago and Indiana Central	188		12	37,600 00		200 00	
9018	Gallion to Indianapolis	Cleveland, Columbus, Cincinnati and Indianapolis	304		12	35,700 00		175 00	
9019	Manchester to Hillsborough	Marietta and Cincinnati	21		6	787 00		37 48	
9020	Portsmouth to Reed's Mills	do	56		6	2,800 00		50 00	
9021	Toledo to Cleveland	Lake Shore	114		12	22,800 00		200 00	
9022	Toledo to Quincy; with branch, Bluff City to Naples; and branch, Clayton to Keokuk	Toledo, Wabash and Western	524		6	65,500 00		125 00	
9024	Freemont to Findlay	Lake Erie and Louisville	37		6	1,480 00		40 00	
9025	Carey to Findlay	Cincinnati, Sandusky and Cleveland	16		6	800 00		50 00	
9026	Dayton to Union City	Dayton and Union	48		6	3,600 00		75 00	
9027	Dayton to Toledo	Dayton and Michigan	149		12	14,900 00		100 00	
9028	Hamilton to Indianapolis; with branch, Connersville to New castle.	Cincinnati and Indianapolis Junction.	124		6	6,300 00		50 00	
9029	Hamilton to Richmond	Cincinnati, Richmond and Chicago	48		6	3,600 00		75 00	
9030	Cincinnati to Dayton	Cincinnati, Hamilton and Dayton	25		12	8,750 00		175 00	
9031	Cincinnati to Springfield	Little Miami	35		12	6,500 00		125 00	
9032	Cincinnati to Parkersburg	Cincinnati and Cincinnati	65		12	10,525 00		225 00	
9033	Morrow to Zanesville	Marietta and Cincinnati	19		6	20,150 00		100 00	
9034	Dayton to Richmond	Cincinnati and Zanesville	107		6	9,075 00		50 00	
		Columbus and Xenia	132.9		6	2,100 00		75 00	
			42					50 00	

Station	6	8, 712 50	182 00
Indianapolis, Cincinnati and La Fayette.	6	8, 712 50	182 00
Harrison Junction to Hagerstown.	12	32, 400 00	200 00
Columbus to Pittsburgh.	12	50 00	50 00
Branch, Meigs to Cadiz.	6	1, 000 00	50 00
Springfield to London.	12	30, 600 00	100 00
Salamanca to Dayton.	12	75 00	75 00
Youngstown to Cross Cut.	6	1, 040 00	50 00
Salamanca to Lancaster.	6	1, 628 50	50 00
WEST VIRGINIA.		574, 350 50	
Laurel Junction to Velecano.	6	240 00	30 00
Harper's Ferry to Winchester.	6	3, 201 00	100 00
Grafton to Parkersburg.	6	10, 400 00	100 00
VIRGINIA.		13, 840 00	
Washington, D. C., to Lynchburg.	7	18, 300 00	100 00
Game Point to Richmond.	14	11, 325 00	50 00
Alexandria to Hamilton.	6	2, 250 00	50 00
Manassas to Harrisonburg.	6	5, 550 00	50 00
Richmond to Covington.	136	14, 150 00	100 00
Richmond to Greensburg, N. C.	6	14, 287 50	50 00
Petersburg to Norfolk.	14	3, 675 00	75 00
Petersburg to City Point.	7	4, 075 00	150 00
Petersburg to Lynchburg.	6	600 00	50 00
Petersburg to Weldon, N. C.	6	6, 150 00	50 00
Portsmouth to Weldon, N. C.	14	9, 750 00	50 00
Lynchburg to Goodson and Bristol, Tenn.	7	6, 000 00	150 00
Wilmington, Charlotte and Ruth- erford.	7	20, 500 00	75 00
Wilmington, Charlotte and Ruth- erford.	7	116, 612 50	100 00
NORTH CAROLINA.			
Weldon to Wilmington.	7	24, 337 00	150 00
Branch, Rocky Mount to Tarboro.	7	608 00	23 38
Raleigh to Weldon.	7	7, 275 00	75 00
Goldboro to Charlotte.	7	16, 725 00	75 00
Goldboro to Morehead City.	7	4, 750 00	50 00
Salisbury to Manteo.	7	4, 400 00	30 00
Wilmington to Wadesboro.	3	4, 220 00	30 00
Wilmington, Charlotte and Ruth- erford.	3	920 00	20 50
Western Division, Wilmington, Charlotte to Cherryville.	3	1, 350 00	30 00
Charlotte to Cherryville.		62, 595 00	

For 76½ miles. Seven times a week on 136½ miles.
For 130 miles. Six times a week four months, three times a week eight months on 70 miles.

B.—Railroad service as in operation on June 30, 1889—Continued.

Number of route.	Terminal.	Corporate title of company carrying the mail.	Distance. Miles.	Total distance in each State.	Number of trips per week.	Annual pay. Dollars.	Annual pay in each State. Dollars.	Annual cost per mile on each route. Dollars.	Remarks.
SOUTH CAROLINA.									
5601	Kingsville to Wilmington.	Wilmington and Manchester.	171	171	14	25,850 00	25,850 00	150 00	
5602	Kingsville to Augusta. Branch, Kingsville to Camden. Branch, Kingsville to Columbia. Branch, Branchville to Charleston.	South Carolina.	119 374 97 62	119 374 97 62	7 3 3 12	11,900 00 1,125 00 1,350 00 6,200 00	11,900 00 1,125 00 1,350 00 6,200 00	100 00 30 00 50 00 100 00	
5603	Florence to Cheraw.	Cheraw and Darlington.	404	404	7	1,200 00	1,200 00	30 00	
5604	Charleston to Florence.	Northeastern.	104	104	14	15,600 00	15,600 00	150 00	
5605	Charleston to Sallchatchie.	Savannah and Charleston.	61	61	3	1,830 00	1,830 00	30 00	
5606	Columbia to Greenville.	Charlotte and South Carolina.	110	110	12	8,250 00	8,250 00	75 00	
5607	Columbia to Greenville. Branch, Hodges to Abbeville. Branch, Bolton to Anderson C. H.	Greenville and Columbia.	1454 114 104	1454 114 104	6 6 6	10,763 00 345 00 292 00	10,763 00 345 00 292 00	75 00 30 00 30 00	
5608	Alston to Spartanburg C. H.	Kings Mountain.	924	924	6	705 00	705 00	40 00	
5610	Newberry C. H. to Laurens C. H.	Spartanburg and Union.	70	70	6	9,800 00	9,800 00	30 00	
5682	Anderson C. H. to Wallula.	Laurens.	32	32	3	1,200 00	1,200 00	30 00	
5712	Columbia to Augusta.	Blue Ridge.	34	34	6	1,020 00	1,020 00	30 00	
		Columbia and Augusta.	85	85	6	6,375 00	6,375 00	75 00	
				1,1434			96,605 00		
GEORGIA.									
6001	Augusta to Atlanta.	Georgia.	1718	1718	7	17,916 00	17,916 00	100 00	
6002	Branch, Camak to Mayfield.	Western and Atlantic.	15	15	7	17,250 00	17,250 00	125 00	
6003	Atlanta to Chatanooga.	Atlanta and West Point.	138	138	13	8,625 00	8,625 00	100 00	
6004	Millen to Augusta.	Central R. R. and Banking Co.	534	534	7	5,313 00	5,313 00	100 00	
6005	Washington to Double Wells.	Georgia.	184	184	6	9,925 00	9,925 00	50 00	
6-06	Union Point to Athens.	do.	41	41	6	9,030 00	9,030 00	50 00	
6-08	Kingsport to Rome.	do.	304	304	7	1,025 00	1,025 00	50 00	
60-9	Savannah to Live Oak.	Atlantic and Gulf.	1804	1804	7	13,536 00	13,536 00	75 00	
6010	Savannah to Bainbridge.	Central R. R. and Banking Co.	1084	1084	7	5,975 00	5,975 00	50 00	
6011	Savannah to Macon.	Southwestern and Macon.	1904	1904	7	19,312 00	19,312 00	100 00	
6012	Macon to Atlanta.	Macon and Western.	1024	1024	7	5,000 00	5,000 00	50 00	
6013	Macon to Hawkinsville.	Macon and Brunswick.	1024	1024	7	7,725 00	7,725 00	75 00	
6014	Milledgeville to Gordon.	Central R. R. and Banking Co.	504	504	7	1,000 00	1,000 00	90 00	
6015	Milledgeville to Easton.	do.	184	184	7	1,368 00	1,368 00	75 00	
			924	924	7	1,106 00	1,106 00	50 00	

							Six times a week, six mo.
6016	Fort Valley to Eufrasia.....	{ 1151 }	Southwestern.....	7	5,782 00	..	50 00
	Branch, Romeick to Albany.....	{ 224 }	..	7	1,125 00	..	50 00
	Branch, Outbrett to Fort Guinea ..	34	..	6	1,900 00	..	50 00
6143	Trenton to Wauhatable.....	12	Alabama and Chattanooga.....	6	360 00	..	30 00
					1,401 1-6	..	115,814 00
	FLORIDA.						
6402	Fernandina to Cedar Keys.....	154 8	Florida.....	6	7,740 00	..	50 00
6403	Jacksonville to Lake City.....	61	Pensacola and Georgia.....	6	6,103 00	..	100 00
6404	Quincy to Lake City.....	131 1	do.....	6	13,125 00	..	100 00
	Branch, Station No. 3 to Monticello ..	4 1	..	6	337 50	..	75 00
	Branch, Tallahassee to St. Marks ..	21 1	..	6	1,067 50	..	50 00
					373 3	..	28,360 00
	MICHIGAN.						
12501	Detroit to Chicago, Ill.....	248	Illinois, Michigan Southern and Northern Indiana.....	12	36,300 00	..	150 00
12501 1/2	Toledo, Ohio, to Elkhart, Ind.....	133	do.....	6	6,650 00	..	50 00
12502	Toledo, Ohio, to Detroit, Mich.....	65	do.....	6	6,500 00	..	100 00
12503	Monroe to Adrian.....	34	do.....	6	7,700 00	..	50 00
12504	Adrian to Jackson.....	46	do.....	6	7,300 00	..	50 00
12505	White Pigeon to Kalamazoo.....	38 32	St. Joseph Valley.....	6	4,916 00	..	50 00
12506	Detroit to Chicago, Ill.....	263 33	Michigan Central.....	12	42,767 50	..	150 00
12507	Detroit to Grand Haven.....	190	Detroit and Milwaukee.....	12	19,000 00	..	100 00
12508	Detroit to Port Huron.....	64 35	Chicago, Detroit and Canada Grand Trunk Junction.....	6	3,212 50	..	50 00
12510	Holly to Flint.....	17 22	Flint and Holly.....	12	1,991 50	..	75 00
12511	Bay City to Flint.....	46 12	Flint and Pere Marquette.....	12	3,439 00	..	75 00
12512	Jackson to Winona.....	114 12	Chicago, Lansing and Saginaw.....	12	8,339 00	..	75 00
12513	Economia to Marquette, (part) ..	69	Chicago and Northwestern.....	6	4,600 00	..	66 66
12514	East Saginaw to Averill's Station ..	26 47	Flint and Pere Marquette.....	6	1,523 50	..	50 00
12515	Grand Rapids to Cedar Springs, (part) ..	50	J. M. Cook.....	6	750 00	..	37 50
12516	Jackson to Hastings.....	89 1/2	Grand River Valley.....	6	3,125 00	..	50 00
12517	Kalamazoo to Grand Rapids.....	56 1/2	Kalamazoo, Allegan and Grand Rapids.....	6	2,355 00	..	40 00
					1,519 1/2	..	145,820 00
	INDIANA.						
12001	Indianapolis to Lafayette.....	65 1/2	Indianapolis and Cincinnati.....	12	6,569 50	..	100 00
12002	Indianapolis to Peru.....	54	Indianapolis, Peru and Chicago.....	12 } {	6,600 00	..	100 00
12003	Indianapolis to Cincinnati.....	24	..	6	..	..	50 00
12004	Columbus to Madison.....	113 1/2	Indianapolis and Cincinnati.....	12	14,187 50	..	125 00
		46	Jeffersonville, Madison and Indianapolis.....	6	2,300 00	..	50 00
12105	New Albany to Terre Haute.....	73	Terre Haute and Indianapolis.....	12	14,600 00	..	900 00
12013	Indianapolis to Terre Haute.....	114	Jeffersonville, Madison and Indianapolis.....	12	22,800 00	..	900 00
12049	Rushville to Columbus.....	46	do.....	6	1,840 00	..	40 00
12051	Richmond to Chicago, Ill.....	225 1/2	Chicago and Great Eastern.....	12	33,825 00	..	150 00
12090	Cincinnati to East St. Louis.....	341	Ohio and Mississippi.....	13	63,300 00	..	900 00

Six times a week, six months.

B.—Railroad service as in operation on June 30, 1869—Continued.

Number of route.	Terminal.	Corporate title of company carrying the mail.	Distance. Miles.	Total distance in each State. Miles.	Number of trips per week.	Annual pay. Dollars.	Annual pay in each State. Dollars.	Annual cost per mile on each route.	Remarks.
INDIANA—Continued.									
12105	New Albany to Michigan City.	Louisville, New Albany & Chicago.	62	62	12	28,800 00		100 00	
12132	Evansville to Rockville.	Evansville and Crawfordville.	227	6	6			50 00	
12228	State Line to Logansport.		23	6	6	9,400 00		75 00	
12292	Richester to Laporte.	Columbus and Indiana Central.	110	6	6			50 00	
12340	Fairland to Martinsville.	Chicago, Cincinnati and Louisville.	61	6	6	3,050 00		50 00	
12359	Bradford to Logansport.	Indianapolis and Cincinnati.	38½	6	6	1,500 00		30 00	
12394	Indianapolis to Freedom.	Columbus and Indiana Central.	114.60	6	6	1,732 50		45 00	
		Indianapolis and Vincennes.	61.44	6	6	5,730 50		50 00	
				1,849.33		3,072 00	224,200 00	50 00	
ILLINOIS.									
11401	Chicago to Milwaukee, Wis.	Chicago and Northwestern.	87	12	12	8,700 00		100 00	
11402	Chicago to Freeport.	do.	121	12	12	15,125 00		125 00	
11403	Chicago to Council Bluffs, Iowa.	do.	489.06	12	12	97,812 00		200 00	
11404	Chicago to Davenport.	Chicago and Rock Island.	183	12	12	18,300 00		100 00	
11405	Chicago to Burlington.	Chicago and Burlington and Quincy.	297.70	12	12	34,342 50		150 00	
	Branch to Turner.		13	6	6			50 00	
	Branch to New Boston.		50.75	6	6			50 00	
11406	Chicago to East St. Louis.	Chicago and Alton.	253	12	12	42,450 00		150 00	
11407	Chicago to Cairo.	Illinois Central.	283	12	12	42,100 00		150 00	
11408	Elgin to Richmond.	Chicago and Northwestern.	112	6	6	1,650 00		50 00	
11409	Caledonia Station to Madison, Wis.	do.	60	6	6	4,500 00		75 00	
11410	Courtland Station to Sycamore.	Sycamore and Courtland.	5	6	6	250 00		50 00	
11411	Rock Island to Coal Valley.	Rock Island and Peoria.	12	6	6	600 00		50 00	
11412	Bureau Junction to Peoria.	Chicago and Rock Island.	47	6	6	9,350 00		50 00	
11413	Joliet to Lake Station.	Michigan Central.	45	6	6	2,250 00		50 00	
11414	Peoria to State Line.	Toledo, Peoria and Warsaw.	111	6	6	11,100 00		100 00	
11415	Peoria to Galesburg.	Chicago, Burlington and Quincy.	55	6	6	5,500 00		100 00	
11416	Peoria to Virginia.	Peoria, Pekin and Jacksonville.	71.65	6	6	3,562 50		50 00	
11417	Lewistown to Yates City.	Chicago, Burlington and Quincy.	31	6	6	1,550 00		50 00	
11418	Bloomington to Jacksonville.	St. Louis, Jacksonville & Chicago.	89.60	6	6	4,480 00		50 00	
11419	Jacksonville to Godfrey.	do.	61½	6	6	4,612 50		50 00	
11420	Galesburg to Quincy.	Chicago, Burlington and Quincy.	100	12	12	15,000 00		150 00	
11421	Dunlap to Centralia.	Illinois Central.	344	12	12	34,400 00		100 00	

[illegible]

B.—Railroad service as in operation on June 30, 1869—Continued.

Number of route.	Termini.	Corporate title of company carrying the mail.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Annual cost per mile on each route.	Remarks.
	Missouri—Continued.								
10611a	Moberly to Kansas City.....	North Missouri.....	Miles. 125½	Miles. 1,407.60	6	Dollars. 12,575 00	Dollars. 12,575 00	Dollars. 100 00	
10636	Tipton to Booneville.....	Ozark Valley & Southern Kansas.....	95		6	825 00		95 00	
10673	Centralia to Columbia.....	North Missouri.....	22		6	1,100 00		50 00	
10674	Kansas City to Cameron.....	Hannibal and St. Joseph.....	54		6	6,120 00		100 00	
10674	St. Joseph to Council Bluffs, Iowa.	St. Joseph and Council Bluffs.....	131		6	17,030 00		130 00	
	MINNESOTA.						153,411 25		Includes \$720 for ferrisage of Missouri River.
13333	Winona to Waaseca.....	Winona and St. Peter.....	104.83			7,989 25		75 00	Six times a week, or as much oftener as cars may run, if required.
13606	St. Paul to Mankato.....	Minnesota Valley.....	87½		12	6,543 25		75 00	
13608	Minneapolis to North McGregor, Iowa.	Milwaukee and St. Paul.....	215.72		12	21,572 00		100 00	
13691	St. Paul to Saint Rapids.....	St. Paul and Pacific.....	80.90		12	6,067 50		75 00	
13659	LaCrosse, Wis., to Lanesborough, Minn.	Southern Union.....	51½			2,440 00		47 38	Do.
13740	St. Paul to Crow River.....	St. Paul and Pacific.....	12½ 29		12½ 6	2,075 00		50 00	
	KENTUCKY.			581.70			46,560 00		
9605	Ashland to Coalton.....	Lexington and Big Sandy.....	11		6	950 00		32 73	
9606	Covington to Nicholasville.....	Kentucky Central.....	99		12½	10,550 00		100 00	
9607	Louisville to Lexington.....	Louisville and Frankfort.....	13		6			50 00	
9608	Louisville to Nashville, Tenn.	Louisville and Nashville.....	94		9	9,400 00		100 00	
9609	Junction to Bardonia.....	do.....	184.60		7	32,565 00		175 00	
9610	Lebanon Junction to Mount Vernon Branch, Richmond Junction to Richmond.....	do.....	17.3 92.3 32.8		6 6 6	540 00 7,445 00 645 00		31 21 75 00 25 00	Distance increased 7 2-30 miles.
9611	Bowling Green to Guthrie.....	do.....	51		7	5,100 00		100 00	
9612	Paducah to Union City, Tenn.....	New Orleans and Ohio.....	62	660.30	6	3,100 00	69,795 00	50 00	
	TENNESSEE.								
10001	Knoxville to Bristol.....	East Tennessee and Virginia.....	130.7		7	16,337 50		135 00	
10002	Knoxville to Chattanooga.....	East Tennessee and Georgia.....	112		7	16,850 00		135 00	
10003	Branch, Cleveland to Dalton, Ga. } Rogersville to Bull's Gap.....	do.....	244 15		6	790 00		15 68	

10004	Nashville to Chattanooga. Branch, War Trace Depot to Shelbyville.	153 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Two miles mail messenger service.

B.—Railroad service as in operation on June 30, 1889.—Continued.

Number of route.	Termini.	Corporate title of company carrying the mail.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Annual cost per mile on each route.	Remarks.	
LOUISIANA—Continued.										
8081	Clinton to Port Hudson.....	Clinton and Port Hudson.....	214	337½	3	1,200 00	30,160 00	53 81		
8086	Baton Rouge to Lavonia.....	Baton Rouge, Grosse Tete and Opelousas.	23		1	360 00		12 86		
TEXAS.										
8571	Houston to Beaumont.....	Texas and New Orleans.....	84.7		2	4,000 00		47 22		
8502	Houston to Galveston.....	Galveston, Houston & Henderson.	53.6		14	6,700 00		125 00		
8503	Houston to Columbia.....	Houston Tap and Brazoria.....	51.1		2	1,277 50		25 00		
8504	Houston to Bryan.....	Houston and Texas Central.....	100.6		7	10,060 00		100 00		
8505	Harrisburg to Columbus.....	Buffalo Bayou, Brazos and Colorado Rivers.	84		3	4,200 00		50 00		
8561	Hempstead to Brenham.....	Houston and Texas Central.....	25.3		6	1,263 00		50 00		
8595	Marshall to Shreveport.....	Southern Pacific.....	42.6	441.9	6	3,195 00	30,697 50	75 00	Includes \$1,200 for extra postal agents.	
CALIFORNIA.										
14702	San Francisco to San José.....	San Francisco and San José.....	50		12	11,200 00		200 00		
14742	Sacramento City to Folsom City.....	Sacramento Valley.....	22.2		12	3,480 00		150 00		
14753	Roseville to Lincoln.....	Central Pacific.....	12		12	1,800 00		150 00		
14834	Sacramento to Promontory Point, Utah.	do.....	540.30 150		12 } 12 }	180,075 00		300 00		
KANSAS.										
14083	Wyandotte to Phil. Sheridan.....	Kansas Pacific.....	405		12	65,550 00		150 00		
14164	Atchison to Waterville.....	Central Branch Union Pacific.....	96		7	7,200 00		75 00		
14171	Lawrence to Ottawa.....	Leavenworth, Lawrence and Galveston.	30	12	4,500 00	150 00				
14211	St. Joseph, Mo., to Troy, Kansas.....	St. Joseph and Denver.....	14	545	6	700 00	77,950 00	50 00		
NEBRASKA.										
14451	Omaha to Promontory Point, Utah.	Union Pacific.....	934.4 150	1,064.4	12 } 12 }	278,600 00	278,600 00	250 00 150 00		

GILLES A. SMITH,
Second Assistant Postmaster General.

C.—Steamboat service as in operation on June 30, 1869.

States.	Number of route.	Termini.	Distance. <i>Miles.</i>	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
New Hampshire	317a	Wolboro' to Meredith Village	33	<i>Miles.</i>	3	\$500 00		During navigation. Do.
	323	Weir's Bridge to Wolboro'	30	63	6	650 00	\$1,150 00	
Massachusetts	670	Hyannis to Nantucket	30		6	2,500 00		
	674	New Bedford to Edgartown	38	68	6	1,475 00	3,975 00	
Rhode Island	809	Newport to New York	160	160	6	2,500 00	2,500 00	During navigation.
New York	1119	Whitehall to Rouse's Point	95		11	4,750 00		During navigation. *Three times a month, under act of Congress approved March 25, 1864.
	1387	Ithaca to Cayuga	40		6	1,713 00		
	1490	Geneva to Watkins	47		6	700 00		
	1517	New York to San Francisco, Cal.	6,110	6,392	*	150,000 00	157,163 00	
New Jersey	1607	New York to Keyport	25		6	535 00		
	1608	New York to Port Monmouth	20		6	1,000 00		
	1692	South Amboy to New York	27	72	12	2,338 00	3,873 00	
Pennsylvania	1876	Pittsburg to Greensboro'	94		6	6,300 00	6,300 00	
				94				
Maryland	2912	Baltimore to Queegstown	40	40	3	750 00	750 00	
Ohio	9051	Portsmouth to Cincinnati	117		3	2,500 00		
	9052	Cincinnati to Mayeville	74		6	4,000 00		
	9053	Ironton to Gallipolis	60	251	3	1,940 00	8,440 00	

C.—Steamboat service as in operation on June 30, 1869—Continued.

States.	Number of route.	Terminal.	Distance. Miles.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
West Virginia.	4102	Wheeling to Parkersburg.	99	Miles.	6	\$4,800 00	.....
	4130	Parkersburg to Gallipolis, Ohio.	86½	.....	6	4,900 00	.....
	4129	Kanawha C. H. to Gallipolis, Ohio.	65	.....	.....	2,449 00	\$12,149 00	
Virginia.	4402	Washington, D. C., to Game Point, Va.	55½	.....	14	8,385 00	.....
	4415	Norfolk to Baltimore.	200	.....	6	16,000 00	.....
	4417	Norfolk to Eastville.	57	.....	3	3,500 00	.....
	4418	Norfolk to Matthews C. H.	60	.....	3	1,000 00	.....
	4419	Norfolk to Richmond.	145	.....	3	3,000 00	32,885 00	
North Carolina.	5026	Wilmington to Smithville.	20	.....	2	699 00	.....
	5034	Beaufort to Portsmouth, N. C.	35	.....	1	398 00	.....
	5037	Plymouth to Franklin Depot.	107	.....	3	2,000 00	.....
	5040	Plymouth to Hamilton.	35	.....	.....	850 00	3,847 00	
South Carolina.	5643	Beaufort to Port Royal.	16	.....	1	400 00	.....
	5711	Charleston to Edisto Island.	35	.....	1	624 00	.....
	5716	Bluffton to Savannah, Ga.	35	.....	1	300 00	1,394 00	
Georgia.	6060	Rome to Gadsden, Ala.	155	.....	1	1,526 87	.....
	6124	Fernandina, Fla., to Trader's Hill, Ga.	96	.....	1	1,303 00	.....
	6144	Savannah to Jacksonville, Fla.	333	.....	1	5,850 00	8,679 87	
Florida.	6414	Platka to Jacksonville.	75	.....	2	1,800 00	.....
	6416	Platka to Meltonville.	125	.....	1	2,400 00	.....
	6433	New Orleans, La., to Key West, Fla.	266	.....	1	67,000 00	.....
	6435	Saintbridge, Ga., to Apalachicola, Fla.	243	.....	2	7,000 00	.....
	6444	Pensacola to Milton.	39	.....	2	2,000 00	.....

		1, 701	3, 180	31, 900 00	111, 600 00	Twice a month.
6462	Baltimore, Md., to New Orleans, La.					
13623	Grand Haven to Milwaukee, Wis.	85		1, 800 00		During navigation, say 7 months.
13741	Detroit to Sault de Ste. Marie	350		1, 190 00		During navigation, say 6 months.
13745	Green Bay to Hancock	208		13, 867 00		During navigation, say 6 months.
13749	Port Huron to Mackinaw	240		646 80		During navigation, say 8 months.
13753	Manistee to Milwaukee, Wis.	200		5, 200 00		During navigation, say 8 months.
13802	Manistee to Traverse City	200		2, 600 00		During navigation, say 8 months.
13803	Grand Haven to St. Joseph	100		2, 900 00		During navigation, say 8 months.
13806	Grand Haven to Chicago, Ill.	75		945 00		During navigation, say 7½ months.
13823	Hancock to Duluth, Minn.	250	1, 708	680 00	27, 058 80	Four months.
13013	La Crosse to Dubuque, Iowa	165		10, 980 00		During navigation, say 7 months.
13017	Oshkosh to New London	67		1, 200 00		During navigation, say 6 months.
13262	Berlin to Oshkosh	27	259	400 00	12, 580 00	During navigation, say 6 months.
10507	St. Louis to Keokuk, Iowa	232		8, 000 00	8, 000 00	
13501	St. Paul to La Crosse, Wis.	190		7, 137 00		
13502	La Crosse, Wis., to St. Paul, Minn.	180	370	9, 150 00	16, 287 00	During navigation, say 7 months.
9601	Louisville to Cincinnati	135		9, 000 00		
9602	Louisville to Evansville, Ind.	202		7, 990 00		
9603	Evansville, Ind., to Cairo, Ill.	200		15, 000 00		
9607	Columbus to Cairo, Ill.	25		3, 600 00		
9609	Cairo, Ill., to Eastport, Miss.	320	882	4, 878 00	40, 468 00	
6805	Guntersville to Decatur	94		16, 378 00		
6807	Mobile to Selma	315	409	7, 800 00	24, 178 00	
7505	Memphis, Tenn., to Pine Bluff, Ark.	352		15, 000 00		
7505a	Pine Bluff to Little Rock	105		6, 000 00		
7506	White River to Jacksonville	370	827	12, 000 00	33, 000 00	

C.—Steamboat service as in operation on June 30, 1869—Continued.

States.	Number of route.	Termini.	Distance.	Total distance in each State.	Number of trips per week.	Annual pay.	Annual pay in each State.	Remarks.
Louisiana.....	8903	New Orleans to St. Francisville.....	Miles. 170	.....	2	\$6,400 00	.....
	8905	New Orleans to Bayou Settlement.....	67	.....	2	1,800 00	.....
	8906	New Orleans to Mobile, Ala.....	180	.....	6	25,000 00	.....
	8907	New Orleans to Coushatta.....	56	.....	2	9,000 00	.....
	8974	Brashear New Iberia.....	70	.....	2	14,000 00	.....
	8977	St. Louis, Mo., to Memphis, Tenn.....	450	.....	2	20,800 00	.....
	8979	Memphis, Tenn., to Vicksburg, Miss.....	447	.....	2	20,800 00	.....
	8980	Vicksburg, Miss., to New Orleans.....	397	.....	2	20,000 00	.....
	8982	New Orleans to Pascagoula, Miss.....	104	.....	2	4,500 00	.....
			1,941	.....		\$104,500 00	.....
California.....	14701	San Francisco to Sacramento.....	110	.....	6	18,000 00	.....
	14703	San Francisco to Stockton.....	120	.....	6	15,000 00	.....
	14705	San Francisco to Red Bluff.....	35	.....	6	4,000 00	.....
	14835	San Francisco to Portland, Oregon.....	600	.....	.....	25,000 00	.....	Three times a month.
			965	.....		62,000 00	.....
Oregon.....	15101	Portland to Monticello.....	52	.....	3	5,000 00	.....
	15102	Portland to The Dalles.....	119½	.....	6	10,000 00	.....
	15119	Astoria to Portland.....	110	.....	2	6,900 00	.....
	15138	Oregon City to Dayton.....	38	.....	3	600 00	.....
			319½	.....		22,500 00	.....
Washington Territory.....	15407	Olympia to Victoria.....	900	.....	.....	10,000 00	.....
		Seattle to Whatcom.....	165	.....	.....	5,800 00	.....
			365	.....		15,800 00	.....

GILES A. SMITH,
Second Assistant Postmaster General.

D.—Table showing the increase and decrease in mail transportation and cost during the year ended June 30, 1893.

States and Territories.	Celerity, certainty, and security.				Steamboat.				Railroad.				Total annual transportation.				Total annual cost.	
	Length of routes.		Cost.		Length of routes.		Cost.		Length of routes.		Cost.		Increase.		Decrease.		Increase.	Decrease.
	Increase.	Decrease.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.	Miles.	Dollars.				
Maine.....	0		80														Dollars.	Dollars.
New Hampshire.....	1		923														913	923
Vermont.....		5	255														255	255
Massachusetts.....	11		340														16,083	16,083
Rhode Island.....																	1,296	1,296
Connecticut.....	29c		44														5,334	5,334
New York.....	43		4,372														689,663	689,663
New Jersey.....	129		2,732														5,354	5,354
Pennsylvania.....	549		25,624														22,679	22,679
Delaware.....	47		25														947	947
Maryland.....	227		5,093														84,176	84,176
West Virginia.....	130		11,873														864,431	864,431
Virginia.....	25		76														116	116
North Carolina.....	44		4,794														10,478	10,478
South Carolina.....	108		2,104														5,112	5,112
Georgia.....	379		5,814														4,324	4,324
Florida.....	143		3,740														3,252	3,252
Michigan.....	476		7,724														69,805	69,805
Indiana.....	345		1,831														3,438	3,438
Illinois.....	96		3,034														8,338c	8,338c
Wisconsin.....	147		896														18,877	18,877
Iowa.....	158		3,869														11,367	11,367
Missouri.....	257		4,187														14,809	14,809
Minnesota.....																	3,297	3,297
																	56,505	56,505
																	3,413	3,413
																	57,323	57,323
																	19,531	19,531
																	257,641	257,641
																	63,128	63,128
																	596,663	596,663
																	69,192	69,192
																	23,718	23,718

a Increased number of trips.

b Corrected distance.

c Route from Stamford to Richfield 174 miles, placed under railroad contract; remain-

ing 114 miles is for discontinued service.

d Besides the steamship service from New York via Panama to San Francisco,

Cal., the steamer set down to California Route from White Hall to Rome's Point

carried to end at Plattsburg, saving 25 miles and \$1,200 per annum.

e Close of first year of new contract term.

f The greater portion of this belongs to railroads, and is caused by the fact that pre-

vious reports gave the contract number of trips, whereas returns from the rail-

road officials, in connection with the reports of weight of mails, &c., show that

the number of trips actually performed is greatly in excess of the contract number.

g Route from Graham to Parkersburg transferred to West Virginia.

h Occasional by failures and deaths of contractors, and service having to be re-let

at higher pay.

D.—Table showing the increase and decrease in mail transportation, &c.—Continued.

States and Territories.	Celerity, certainty, and security.			Steamboat.			Railroad.			Total annual transportation.		Total annual cost.	
	Length of routes.		Cost.	Length of routes.		Cost.	Length of routes.		Cost.	Increase.	Decrease.	Increase.	Decrease.
	Miles.	Decrease.	Dollars.	Miles.	Increase.	Dollars.	Miles.	Increase.	Dollars.					Miles.	Increase.
Kentucky.....	54	.....	Dollars. 229	Miles. 4	.....	Dollars. 450	Miles. 41	.....	Dollars. 6,470	.....	Miles. 71,665	Dollars. 6,691	.....
Tennessee.....	127	.....	1,388	.....	.....	.....	905	.....	12,105	.....	133,951	13,683	.....
Alabama.....	.....	119	2,489 ^a	.....	104 ^b	7,675 ^b	78	.....	3,628	.....	71,318	13,755	.....
Mississippi.....	86	.....	432	.....	.....	.....	28 ^c	.....	.....	.....	.....	.....	.....
Arkansas.....	653	.....	4,460	105	.....	6,000	40	.....	5,800	.....	168,336	16,360	636
Louisiana.....	120	.....	39,308 ^d	108	.....	.....	30	.....	300	.....	17,118	39,448	.....
Texas.....	700	.....	293,276	25	.....	500	85	.....	6,937	.....	962,654	210,313	.....
California.....	291	.....	30,013	6,062 ^e	.....	112,500	548	.....	114,375	.....	528,485	31,890	.....
Oregon.....	809	.....	314,460	1	.....	100	132	.....	16,150	.....	527,124	314,390	.....
Kansas.....	1,338	.....	247,706	.....	.....	.....	.....	.....	.....	.....	485,498	231,556	.....
Nebraska.....	26	.....	40,684 ^f	.....	.....	.....	.....	.....	.....	.....	112,184	40,684	.....
New Mexico Ter., Utah Ter., Washington Ter., Colorado Ter., Dakota Ter., Arizona Ter., Idaho Ter., Montana Ter. &c.	271 156 1,092 199 289 389 691	..... ..... ..... ..... ..... ..... .....	13,926 52,900 406,121 4,665 ^g 3,675 4,260 16,935 48,600 59,964	..... ..... ..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... ..... ..... .....	132,750	799,893	10,400	590,104	146,676 52,900 406,121 4,665 3,675 16,935 48,600 59,964	..... ..... ..... ..... ..... ..... ..... .....	1,035,342	
Total.....	6,638 4,506	.....	599,800 1,059,816 529,800	7,423 6,291	.....	940,755 116,850	3,849 330	.....	562,286 15,732	.....	1,784,592 1,784,592	1,173,787 1,035,342	.....
Increase.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	140,445	.....
Decrease.....	2,152	.....	530,016	1,132	.....	123,905	3,519	.....	546,554	.....	6,499,076	.....	.....

^a Increased number of trips.^b Route from Bridgeport to Decatur curtailed to commence at Gunterville, saving 104 miles, and service between Gunterville and Decatur increased to six times a week. Pay on route from Mobile to Selma increased.^c Service on 47½ miles of route from Vicksburg to Meridian reduced to six times a week, and pay to \$75 per mile. Route from York Station, Ala., to Meridian, Miss., 27½ miles, put in operation.^d This is owing principally to the fact that the service re-advertised in January, 1868, to go into operation July 1, 1868, was let at a much lower rate of cost than had been previously given for it.^e Steamship service from New York via Panama to San Francisco, Cal., transferred to New York section.^f Number of trips per week reduced.

GILES A. SMITH,

Second Assistant Postmaster General.

Index to Table E.

Title.	Order.	Number of route.	New number of route.
Alabama and Florida and Mobile and Great Northern	69	6602	.....
Albany and Susquehanna	85	1086	1013
Androscoggin	133	19	19
Atlantic and Great Western. (See Erie.)			
Avon, Genesee and Mount Morris	132	1286	1033
Baltimore and Ohio	102	2910	.....
Bennington and Rutland	75	477	475
Boston and Albany	1	605	605
Boston and Albany	3	688	615
Boston and Albany	6	688	605
Boston and Albany	99	641	641
Boston and Albany	142	606	606
Boston and Albany	173	6054	618
Boston and Albany	174	639	639
Boston and Albany	175	638	638
Boston and Lowell and Nashua and Lowell	16	603	603
Boston and Lowell and Nashua and Lowell	103	629	629
Boston and Lowell and Nashua and Lowell	116	279	278
Boston and Lowell and Nashua and Lowell	120	636	636
Boston and Lowell and Nashua and Lowell	166	631	631
Boston and Maine	24	602	602
Boston and Maine	143	309	308
Boston and Maine	149	602	602
Boston and Maine	163	740	728
Boston and Maine	169	610	610
Boston and Providence	9	608	608
Boston and Providence	160	617	617
Boston and Worcester. (See Boston and Albany.)			
Boston, Clinton and Fitchburg	96	640, 640a	640
Boston, Concord and Montreal	48	253	253
Boston, Concord and Montreal	139	331	331
Boston, Hartford and Erie	105	607	607
Buffalo and Erie	8	1325	1039
Buffalo and Washington	145	1518	1509
Buffalo, Corry and Pittsburg, (late Buffalo and Oil Creek Cross Cut)	101	1499	1043
Cape Cod	44	664	663
Cape Cod	67	730	670
Catawissa	95	2334	1814
Central Ohio	10	9001	.....
Champlain and St. Lawrence	45	1138	1023
Cheshire and Ashuelot	43	693	689
Cheshire and Ashuelot	154	707	703
Chicago, Detroit and Grand Trunk Junction	126	12508	.....
Chicago, Rock Island and Pacific	50	11404	.....
Chicago, Rock Island and Pacific	123	11412	.....
Chicago, Rock Island and Pacific	125	11007	.....
Chicago, Rock Island and Pacific	144	11007	.....
Chicago, Rock Island and Pacific	148	11008	.....
Cincinnati and Indianapolis Junction	153	9028	.....
Cincinnati, Sandusky and Cleveland	40	9013	.....
Cincinnati, Sandusky and Cleveland	171	9025	.....
Concord	17	251	251
Concord and Claremont	114	255	255
Concord, Manchester and Lawrence	61	627	627
Concord, Manchester and Lawrence	134	268	256
Concord, Manchester and Lawrence	165	269	269
Connecticut and Passumpic Rivers	60	452	452
Connecticut River	36	706	702
Connecticut River	170	708	704
Contoocook River	150	300	299
Danbury and Norwalk	82	946	945
Dayton and Union	94	9378	9026
Delaware, Lackawanna and Western	182	1387	1040
Delaware, Lackawanna and Western. (See Oswego and Syracuse.)			
Eastern	13	601	601
Eastern	106	737	727
Eastern	140	619	619
Eastern	168	616	616
Eastern	172	739	621
Eastern	176	620	620
Elbensburg and Cresson	156	2656	1839
Erie	5	1001	1001
Erie	7	1001	1001
Erie, (leases Atlantic and Great Western)	59	9018	.....
Erie, do	89	9038	.....
Erie	112	1321	1035
Erie	115	1324	1038

Index to Table E—Continued.

Title.	Order.	Number of route.	New number of route.
Erie, (lessees Atlantic and Great Western)	129	9006	.....
Erie do	131	1809	.....
Erie do	135	1846	.....
Erie	179	1283	1032
Erie	184	1035	1010
Erie, (old returns)	181	1022	1009
Erie, (lessees Atlantic and Great Western)	188	1824	.....
Fitchburg	14	604	604
Fitchburg	108	637	637
Fitchburg	117	635	635
Fitchburg and Worcester	74	692	668
Florida, Atlantic and Gulf Central. (See Pensacola and Georgia.)			
Flushing	76	1004	1004
Grand River Valley	147	12810	.....
Grand Trunk, (of Canada)	35	115	116
Grand Trunk, (of Canada)	52	115	116
Great Western, (of Canada)	122	1320	1034
Hartford and New Haven	4	938	937
Hartford and New Haven	70	933	932
Hartford, Providence and Fishkill	66	935	935
Hartford, Providence and Fishkill	80	973	972
Housatonic	113	944	943
Houston and Texas Central	62	8504	.....
Hudson and Boston	158	1067	1011
Hudson River, (no returns)	57	1002	1002
Indianapolis, Cincinnati and Lafayette	38	9035	.....
Kansas City and Cameron	57	10673	.....
Lehigh Valley, (late Hazleton)	187	2815	1816
Lewy's Island	192	83	84
Lexington and Arlington	121	632	632
Lexington and Arlington	185	633	633
Long Island	63	1011	1006
Long Island	83	1014	1008
Long Island	104	1013	1007
Maine Central	37	8	9
Marietta and Cincinnati	127	9020	.....
Marietta and Cincinnati	190	9019	.....
Middleboro and Taunton	109	679	676
Middleburg and Schoharie	135	1519	1510
Milwaukee and St. Paul	51	13608	.....
Mississippi, Gainesville and Tuscaloosa	138	6729	.....
Mobile and Great Northern. (See Alabama and Florida.)			
Montgomery and Erie	191	1514	1045
Montreal and Plattsburg	183	1136	1021
Naugatuck	88	943	942
New Bedford and Taunton	27	681	678
New Bedford and Taunton	41	675	672
New Haven and New London	11	937	936
New Haven and Northampton	98	939	941
New London Northern	65	927	926
New London Northern	90	700	696
New London Northern	91	927	926
New Orleans, Opelousas and Great Western	53	8001	.....
New York and Harlem, (no returns) . . . . .	.....	1003	1003
New York and New Haven	2	941	939
New York Central, (no returns) . . . . .	.....	1079	1079
New York Central, (for November, 1867)	93	1094	.....
New York Central, (no returns) . . . . .	.....	1234	1027
New York Central do . . . . .	.....	1277	1030
New York Central do . . . . .	.....	1282	1222
New York Central, (for November, 1867)	124	1323	.....
New York Central do	159	1329	.....
New York Central do	167	1303	.....
New York, Providence and Boston	12	802	802
Northern	29	254	254
Northern	162	254	254
Northern. (See Ogdensburg and Lake Champlain.)			
Northern Central, (no returns) . . . . .	.....	1378	1031
North Pennsylvania	84	1804	.....
Norwich and Worcester	47	926	925
Ogdensburg and Lake Champlain, (late Northern)	79	1137	1022
Old Colony and Newport	28	609	609
Old Colony and Newport	42	655	654
Old Colony and Newport	129	656	655
Oswego and Syracuse, (division of Delaware, Lackawanna, and Western)	68	1236	1029
Pensacola and Georgia and Florida, Atlantic and Gulf Central	72	6403-4	.....
Philadelphia and Darby	110	2208	1806

Index to Table E—Continued.

Title.	Order.	Number of route.	New number of route.
Philadelphia and Reading	136	1813	.....
Pittsburg and Connelleville	137	2624	1843
Pittsburg, Fort Wayne and Chicago	164	9506	9039
Pittsfield and North Adams	97	725	721
Portland and Kennebec	56	114	115
Portland and Kennebec	71	1	1
Portland and Oxford Central	180	161	163
Portland and Rochester	118	116	117
Portland, Saco and Portsmouth	15	113	114
Portsmouth Branch. (Marietta and Cincinnati)	54	9032	.....
Portsmouth, Great Falls and Conway	151	310	309
Providence and Worcester	33	801	801
Providence, Warren and Bristol	119	803	803
Rensselaer and Saratoga	20	1096	1018
Rensselaer and Saratoga	23	1103	1019
Rensselaer and Saratoga	25	1109	1020
Rensselaer and Saratoga	81	1080	1012
Rensselaer and Saratoga	157	1091	1015
Rockville. (See Hartford, Providence, and Fishkill.)			
Rome	128	6008	.....
Rome, Watertown and Ogdensburg	55	1212	1028
Rome, Watertown and Ogdensburg	73	1159	1024
Rome, Watertown and Ogdensburg	77	1497	1042
Rutland and Burlington	18	484	482
Rutland and Burlington	32	484	482
St. Joseph and Council Bluffs	34	10874	.....
Schoharie Valley	141	1088a	1014
Selma, Rome, and Dalton	92	6609	.....
Shelbygan and Fond du Lac	100	13012	.....
Skaneateles	126	1242	1046
Southern Minnesota	178	13659	.....
Southern Pacific	86	8595	.....
South Shore	46	657	656
South Side	111	1513	1044
Southwest Pacific	64	19503	.....
Staten Island	107	1010	1005
Stoughton and Easton Branch, (no returns)		651	650
Sullivan	39	483	481
Syracuse and Binghamton	87	1235	1028
Tallahassee	177	6405	.....
Taunton Branch	96	680	677
Troy and Boston	19	1095	1017
Troy and Boston	78	1095	1017
Utica and Black River	130	1206	1025
Vermont and Massachusetts, (no returns)		694	690
Vermont Central	30	463	461
Vermont Central and Vermont and Canada	21	412	412
Vermont Valley	31	489	487
Virginia and Tennessee	49	4422	.....
Warwick Valley	152	1460	1041
Western. (See Boston and Albany.)			
Western Maryland	146	3214	2907
Western, (of North Carolina)	193	5263	5008
Wicomico and Pokomoke	161	2909	.....
Wilmington and Weldon	22	5001	.....
Worcester and Nashua	58	687	683

E.—Table showing the weights of mails, the accommodations for mails and agents, the trips per the contract term *et*[ABBREVIATIONS.—*f. f.*, fixtures and furniture; *f. f. c.*, fixtures and furniture complete; *m. c.*, mail catch *et* *t.*, way trains. A number followed by an asterisk (*) shows the equivalent in round trips.]

Order.	State.	No. of route.	New number of route.	Termini.	Corporate title of company carrying the mail.	Length of r'te. Miles.
1	Mass.	605	605	Boston, Worcester	Boston and Albany	45
2	Conn.	941	939	New Haven, New York	New York and New Haven	76½
3	Mass.	688	605	Worcester, Springfield	Boston and Albany	56
4	Conn.	938	937	New Haven, Springfield	Hartford and New Haven	63 83
5	N. Y.	1001	1001	New York, Middletown	Erie	67
6	Mass.	688	605	Springfield, Albany	Boston and Albany	102
7	N. Y.	1001	1001	Middletown, Dunkirk	Erie	393
	N. Y.	1001	1001	Middletown, Hornelleville	Erie	265
	N. Y.	1001	1001	Hornelleville, Salamanca	Erie	82
	N. Y.	1001	1001	Salamanca, Dunkirk	Erie	46
8	N. Y.	1325	1039	Buffalo, Erie	Buffalo and Erie	89
9	Mass.	608	608	Boston, Providence	Boston and Providence	44
10	Ohio.	9004	9001	Bell Air, Columbus	Central Ohio	137½
11	Conn.	937	936	New Haven, New London	New Haven and New London	50
12	R. I.	802	802	Providence, New London	New York, Providence and Boston	63½
13	Mass.	601	601	Boston, Portsmouth	Eastern	56½
14	Mass.	604	604	Boston, Fitchburg	Fitchburg	52
15	Maine	113	114	Portland, Portsmouth	Portland, Saco and Portsmouth	52
16	Mass.	603	603	Boston, Nashua	Boston and Lowell and Nashua	42
17	N. H.	251	251	Concord, Nashua	Concord	36
18	Vt.	484	482	Rutland, Burlington	Rutland and Burlington	67½
19	N. Y.	1095	1017	Troy, Eagle Bridge	Troy and Boston	24
20	N. Y.	1096	1018	Troy, Saratoga Springs	Rensselaer and Saratoga	32 81
21	Vt.	412	412	Burlington, Rouse's Point	Vt. Central and Vt. and Canada	55½
	Vt.	412	412	Essex, St. Albans	do do	25
	Vt.	412	412	St. Albans, Canada Line	do do	17
22	N. C.	5001		Weldon, Wilmington	Wilmington and Weldon	162
23	N. Y.	1103	1019	Eagle Bridge, Rutland	Rensselaer and Saratoga	62½
24	Mass.	602	602	Boston, South Berwick June'n.	Boston and Maine	75
25	N. Y.	1109	1030	Saratoga Springs, Castleton ..	Rensselaer and Saratoga	54
26	Mass.	680	677	Taunton, Mansfield Junction ..	Taunton Branch	12
27	Mass.	681	678	Taunton, New Bedford	New Bedford and Taunton	20½
28	Mass.	609	609	Boston, Plymouth	Old Colony and Newport	37½
29	N. H.	254	254	Concord, White River June'n.	Northern	69
30	Vt.	463	461	Windsor, Burlington	Vermont Central	119
31	Vt.	489	487	Brattleboro, Bellows Falls	Vermont Valley	24
32	Vt.	484	482	Bellows Falls, Rutland	Rutland and Burlington	52
33	R. I.	801	801	Providence, Worcester	Providence and Worcester	44
34	Mo.	10674		St. Joseph, Mo., Council Bluffs, Iowa.	St. Joseph and Council Bluffs	131
35	Me.	115	116	Portland, South Paris	Grand Trunk (of Canada)	48
36	Mass.	706	702	Springfield, South Vernon Junction.	Connecticut River	50
37	Me.	8	9	Danville Junction, Bangor	Maine Central	110
38	Ohio.	9035		Harrison Junction, Hagerstown.	Indianapolis, Cincinnati and Lafayette.	69.7
39	Vt.	483	481	Bellows Falls, Windsor	Sullivan	25
40	Ohio.	9013		Dayton, Sandusky	Cincinnati, Sandusky & Cleveland	156
41	Mass.	675	672	New Bedford, West Wareham ..	New Bedford and Taunton	16½
42	Mass.	655	654	South Braintree Junction, Newp.	Old Colony and Newport	61½
43	Mass.	683	689	Fitchburg, Bellows Falls	Cheshire and Ashuelot	64

week, and the rates of pay per mile per annum on railroad routes in States (chiefly) in which pired June 30, 1869.

ers; b. c., baggage car; r. p. o., railway post office; d. l., double line; s. l., single line; r. s., route agents; The figures in parentheses in the remarks column refer to the order of the routes in this table.]

Whole weight carried any distance for thirty days.			Aver. weight carried while distance.		Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Remarks.	Order.
Outward.	Inward.	Total.	30 d'ys. total.	Per day, total.					
<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Feet and inches.</i>				
282,738	236,400	519,138	491,790	16,393	r. p. o., 4 lines daily, 23.6 by 8, 35.2 by 8.6, f. f. c.	43	\$375 00	Part; residue \$375, (3) \$300, (6).	1
216,777	311,480	528,257	488,181	16,273	r. p. o., d. l., and r. a. on w. t.	31	375 00		2
271,435	177,792	449,227	429,368	14,312	r. p. o., 4 lines daily, 23.6 by 8, 35.2 by 8.6, f. f. c.	25	375 00	Part; residue \$375, (1) \$300, (6).	3
249,585	173,394	422,979	367,153	12,238	r. p. o., d. l., and r. a. on w. t., 23 by 9, 13 by 6, f. f. c.	31	325 00		4
239,293	68,468	307,761	305,216	10,173	r. p. o., d. l., and r. a. on w. t.	23½	300 00	Part; residue \$275, (7).	5
144,358	77,370	221,728	196,459	6,548	r. p. o., d. l., 23 by 9, 28 by 9, f. f. c.	18	300 00	Part; residue \$375, (1, 3).	6
292,600	96,571	389,231	321,089	7,369	r. p. o. and r. a. on w. t.	15½	275 00	Part; residue \$300, (5).	7
-----	-----	-----	367,734	8,924	r. p. o., d. l.	17½	275 00	Part to Hornellsville.	8
-----	-----	-----	137,303	4,576	r. p. o., s. l., and r. a. on w. t.	16½	275 00	Part to Salamanca.	9
-----	-----	-----	101,735	3,391	r. p. o., s. l.	7	275 00	Part bey'd Salamanca.	10
259,238	113,861	373,099	323,917	10,797	r. p. o., s. l., 36 by 8, f. f. c.	31	250 00		11
32,973	23,075	56,048	39,247	1,308	No mail agent.	25	202 50		12
31,340	51,501	144,841	119,852	3,994	8.9 by 6.2, 8.6 by 6.6, f. f. c.	23	200 00	In June 1868.	13
29,183	20,629	49,812	36,821	1,227	6 by 12, f. f. c., and b. c. 8 by 16.	22½	190 00		14
16,049	24,223	40,272	28,090	936	r. p. o., 36 by 8.6, f. f. c.	31*	175 00		15
114,941	59,095	174,036	137,096	4,569	and m. c., d. l.	18	153 84		16
54,352	25,905	80,347	61,100	2,036	14 by 6.6, 24 by 6.8, f. f. c.	18	150 72		17
50,829	93,970	144,799	121,730	4,038	r. p. o., d. l., 36 by 8.6, f. f. c.	18	150 00		18
75,752	50,758	126,510	114,141	3,804	r. p. o., 22 by 9.6, f. f. c., s. l. e., and m. c.	21	150 00		19
50,966	79,920	130,886	107,858	3,595	r. p. o., s. l., 22 by 7, f. f. c.	18	150 00		20
70,441	31,669	102,110	91,520	3,050	and m. c.	18	150 00	Part; residue \$149, (32).	21
41,156	29,142	70,298	68,096	2,270	15 by 7, f. f. c.	18	150 00	\$2,000 extra for side service.	22
50,256	16,964	76,220	63,115	2,103	9 by 14, f. f. c.	12	150 00	Part; residue \$100, (78).	23
86,743	42,833	129,576	92,181	2,072	14 by 7.2, 21 by 7.2, d. l., f. f. c. and m. c.	13*	150 00		24
65,429	34,139	99,628	97,546	3,251	14 by 7.2, 21 by 7.2, d. l., f. f. c. and m. c.	15*	150 00	Part, Essex to St. Albans.	25
14,643	6,271	20,914	30,914	697		6	150 00	Extra service. No pay.	26
46,141	27,904	74,045	61,306	2,042	20 by 8, 16 by 8, f. f. c.	13	150 00	In September, 1867.	27
65,643	22,852	88,495	52,235	1,740	9 by 14, f. f. c., s. l.	12	150 00		28
66,349	44,299	110,648	47,991	1,599	14 by 6.6, f. f. c., d. l.	12	150 00	Extra trips on part.	29
48,916	12,768	61,684	45,448	1,514	9 by 14, f. f. c., s. l.	12	150 00	Main route; branch	30
8,112	10,915	19,027	18,402	613	Baggage car.	25	150 00	\$50, (149).	31
10,054	7,126	17,180	14,111	470	Locked room. No agent.	24½	150 00		32
49,194	35,425	84,619	31,559	1,051	r. p. o., (11½ miles.) 10.1 by 6½, f. f. c., s. l.	12	144 00		33
52,767	33,609	86,376	73,500	2,449	r. p. o., s. l., 22 by 7, f. f. c.	12	140 00	Main route; branch	34
75,901	49,742	125,643	59,105	1,970	and m. c.	15*	140 00	\$50, (162).	35
30,611	18,703	49,314	47,730	1,590	r. p. o., 21 by 7.2; Way, 14 by 7.2, f. f. c. and m. c.	12	140 00		36
22,546	14,906	37,452	28,728	957	17 by 6.4, f. f. c.	12	140 00		37
16,005	14,632	30,637	13,874	463	17 by 6.4, f. f. c.	6	140 00	Part; residue \$150, (18).	38
23,503	17,485	40,988	25,920	960	13 by 6.3, f. f. c.	24	134 09		39
-----	-----	-----	-----	-----	Commodious	12	130 00	In December, 1868.	40
60,993	35,279	116,272	85,289	2,842	15.6 by 7.6, f. f. c.	12	125 00		41
56,729	37,137	93,866	65,949	2,197	17.8½ by 6.11, f. f. c.	15*	125 00		42
14,340	40,734	55,074	38,600	1,254	13.6 by 7.3, f. f. c.	6½*	125 00	23 days.	43
36,905	13,259	50,164	44,777	1,492	7.6 by 12, f. f. c.	12	125 00	In August, 1868.	44
33,804	16,869	50,673	43,383	1,446	14 by 7.2, f. f. c., s. l.	12	125 00		45
26,974	23,112	50,086	18,847	638	9 by 22, f. f. c.	12	125 00		46
2,027	2,886	4,913	4,004	133	Locked room; no agent.	15*	125 00		47
34,819	27,579	62,398	22,686	755	r. p. o., (23 miles.) 10.1 by 6.4½, f. f. c., s. l.	12	121 42		48
33,579	12,954	46,533	37,940	1,264	14 by 6½, f. f. c.	18	117 18	New cars preparing, 24 by 7½.	49

E.—Table showing the weights of mails, the accom

Order.	State.	No. of route.	New number of route.	Termini.	Corporate title of company carrying the mail.	Length of r'te.
44	Mass.	664	663	Middleboro, Hyannis.....	Cape Cod.....	Miles. 47
45	N. Y.	1138	1023	Rouse's Point, Canada Line...	Champlain and St. Lawrence.....	21
46	Mass.	657	656	Braintree Depot, Cohasset.....	South Shore.....	12
47	Conn.	926	925	New London, Worcester.....	Norwich and Worcester.....	73
48	N. H.	253	253	Concord, Wells River.....	Boston, Concord and Montreal.....	93
49	Va.	4423		Lynchburg, Bristol.....	Virginia and Tennessee.....	205
50	Ill.	11404		Chicago, Davenport.....	Chicago, Rock Island and Pacific.....	183
51	Minn.	13608		Minneapolis, Prairie du Chien.....	Milwaukee and St. Paul.....	219.32
52	Me.	115	116	South Paris, Canada Line.....	Grand Trunk (of Canada).....	117
53	La.	8001		Algiers, Brashear.....	New Orleans, Opelousas and Great Western.....	80
54	Ohio.	9032		Cincinnati, Parkersburg.....	Portsmouth Branch, (Marietta and Cincinnati.).....	206
55	N. Y.	1212	1026	Rome, Pottsdam Junction, Ogdensburg.....	Rome, Watertown & Ogdensburg.....	167
56	Me.	114	115	Portland, Bath, Augusta.....	Portland and Kennebec.....	73
57	Mo.	10873		Kansas City, Cameron.....	Kansas City and Cameron.....	54
58	Mass.	627	623	Worcester, Nashua.....	Worcester and Nashua.....	461
59	Ohio.	9038		Salamanca, Corry.....	Erie, (leaves Atlantic and Great Western.).....	611
60	Vt.	452	452	White River Junction, North Derby.....	Connecticut and Passumpsic Rivers.....	111.17
61	Mass.	627	627	Lawrence, Manchester.....	Concord, Manchester and Lawrence.....	28
62	Texas	8504		Houston, Millican.....	Houston and Texas Central.....	20
63	N. Y.	1011	1006	New York, Greenport.....	Long Island.....	1001
64	Mo.	10503		Pacific, Arlington.....	South West Pacific.....	891
65	Conn.	927	926	New London, Willimantic.....	New London Northern.....	30
66	Conn.	955	955	Waterbury, Providence.....	Hartford, Providence and Fishkill.....	1221
67	Mass.	730	670	Yarmouth Port, Orleans.....	Cape Cod.....	19
68	N. Y.	1236	1029	Syracuse, Oswego.....	Oswego and Syracuse, Division of Del., Lackawanna and Western.....	354
69	Ala.	6602		Montgomery, Mobile.....	Alabama and Florida and Mobile and Great Northern.....	1861
70	Conn.	933	932	Middletown, Berlin Depot.....	Hartford and New Haven.....	10
71	Me.	1	1	Augusta, Skowhegan.....	Portland and Kennebec.....	39
72	Ga.	6403-4		Quincy, Jacksonville.....	Pensacola and Georgia and Florida, Atlantic and Gulf Central.....	1951
73	N. Y.	1159	1024	Watertown, Cape Vincent.....	Rome, Watertown & Ogdensburg.....	96
74	Mass.	692	682	Sterling Junction, Fitchburg.....	Fitchburg and Worcester.....	14
75	Vt.	477	475	Rutland, North Bennington, Bennington.....	Bennington and Rutland.....	59
76	N. Y.	1004	1004	New York, Flushing.....	Flushing.....	16
77	N. Y.	1497	1042	Oswego, Richland.....	Rome, Watertown & Ogdensburg.....	224
78	N. Y.	1095	1017	Eagle Bridge, North Adams.....	Troy and Boston.....	311
79	N. Y.	1137	1022	Rouse's Point, Ogdensburg.....	Ogdensburg and Lake Champlain.....	119
80	Conn.	973	972	Vernon Depot, Rockville.....	Hartford, Providence and Fishkill.....	41
81	N. Y.	1080	1012	Albany, Albany Junction.....	Rensselaer and Saratoga.....	12
82	Conn.	946	945	South Norwalk, Danbury.....	Danbury and Norwalk.....	224
83	N. Y.	1014a	1008	Hicksville, Northport.....	Long Island.....	161
84	Pa.	2204	1804	Philadelphia, Bethlehem, Doylestown.....	North Pennsylvania.....	64.30
85	N. Y.	1086	1013	Albany, Binghamton.....	Albany and Susquehanna.....	143
86	Texas	8595		Marshall, Shreveport.....	Southern Pacific.....	42.6
87	N. Y.	1235	1028	Syracuse, Binghamton.....	Syracuse and Binghamton.....	80
88	Conn.	943	942	Bridgeport, Winsted.....	Naugatuck.....	62
89	Ohio.	9038		Corry, Dayton.....	Erie, (leaves Atl. & Gt. Western.).....	326
90	Mass.	700	696	Palmer, Grout's Corner.....	New London Northern.....	35
91	Conn.	927	926	Willimantic, Palmer.....	New London Northern.....	36
92	Ala.	6609		Selma, Rome.....	Selma, Rome and Dalton.....	196.2
93	N. Y.	1094		Troy, Schoenectady.....	New York Central.....	22
94	Ohio.	9378	9036	Dayton, Union City.....	Dayton and Union.....	46
95	Pa.	2334	1814	Port Clinton, Milton.....	Catawissa.....	92
96	Mass.	640, 640a	640	South Framingham, Pratt's Junction.....	Boston, Clinton and Fitchburg.....	29
97	Mass.	725	721	Pittsfield, North Adams.....	Pittsfield and North Adams.....	21

modations for mails and agents, &c.—Continued.

Whole weight carried any distance for thirty days.			Aver. weight carried while distance.		Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Remarks.	Order.
Outward.	Inward.	Total.	30 d'ys. total.	Per day, total.					
Pds.	Pds.	Pds.	Pds.	Pds.	Feet and inches.				
26,061	17,144	43,205	29,709	990	6 by 11, f. f., d. l., r. p. o., (41 miles.)	12	117 00		44
288	434	722	722	24			116 66	Returns imperfect	45
5,536	3,122	8,658	5,097	169		12	112 50		46
14,942	9,067	24,009	7,482	249	10 by 6.3, f. f., a. l., (60 miles.)	12*	110 00		47
23,613	13,193	36,810	23,903	796	10.8 by 6, f. f. c.	94*	107 52		48
161,939	48,240	210,179	307,472	6,692	8.6 by 21.6, f. f.	7	100 00	In May, 1867.	49
80,049	23,679	103,728	71,969	2,570	9 by 20, f. f. c.	12	100 00	28 days. In Dec., 1867.	50
30,601	57,303	87,904	47,324	1,577	9 by 13, f. f.	12	100 00	In January, 1868.	51
28,576	19,562	48,138	42,639	1,421	15.6 by 7.6, f. f.	6	100 00	Part; residue \$125, (35.)	52
35,369	10,019	45,388	44,031	1,420	12.5 by 6.4, f. f.	7	100 00	31 days. In Jan., 1868.	53
26,802	33,372	60,180	39,238	1,307			100 00	9 miles at \$50. Returns imperfect. In Nov. '68.	54
56,321	31,814	90,135	37,582	1,253	6.10 by 20, f. f., a. l.	16*	100 00		55
38,533	22,512	61,045	34,187	1,139	15 by 8, f. f.	10*	100 00		56
20,066	17,674	37,740	31,503	1,050	Commodious	18	100 00	In November, 1868.	57
28,547	30,642	49,189	30,273	1,009	10 by 7, f. f.	18	100 00		58
23,585	14,263	35,858	27,483	916	8 by 10½, f. f. c., a. l.	13	100 00	Part; residue \$75, (89.)	59
31,138	15,672	46,810	26,524	824	12 by —, f. f.	6	100 00		60
18,858	10,309	29,167	25,834	861	10.6 by 6.6, f. f., a. l.	12	100 00		61
25,773	10,054	35,827	25,541	851		7	100 00	In April, 1867.	62
28,874	16,861	45,735	24,889	830	10 by 8, f. f., a. l., 47 miles, residue b. c.	9*	100 00		63
16,346	13,864	30,210	22,734	757	4 car. f. f.	6	100 00	In December, 1867.	64
18,890	19,022	37,912	19,023	634	11.4 by 6.7, 11 by 6.4, f. f., d. l.	23*	100 00	Part; residue \$75, (91.)	65
32,975	31,440	64,415	18,093	603	7 by 13, f. f., a. l.	12*	100 00	Returns imperfect.	66
13,576	8,642	22,218	17,849	594	6 by 11, f. f., d. l., r. p. o.	12	100 00	\$2,100 per annum for side service.	67
14,805	11,173	25,980	17,810	594	4 by 6, locked. No agent.	18	100 00		68
10,520	10,490	21,019	16,518	550	10.8 by 8, f. f.	7	100 00	In November, 1867.	69
3,997	7,975	11,972	11,235	374	Baggage car	18	100 00		70
12,661	4,478	17,139	10,585	353	15 by 8, f. f.	6	100 00		71
12,458	9,454	21,912	8,419	323	6.6 by 11.1, 6.3 by 9.8.	6	100 00	In March, 1868.	72
7,710	3,876	11,586	8,741	291	Baggage car	12	100 00		73
5,875	3,558	9,433	8,571	285	Baggage car. No r. a.	18	100 00		74
6,000	8,690	14,696	6,714	223	20 by — f. f.	6	100 00		75
2,774	3,785	6,559	6,273	209	4 by 8; no fixtures.	12	100 00	Includes side service	76
5,299	5,535	10,834	5,399	180	Baggage car	12	100 00	Incl'g all side service.	77
9,642	5,004	14,646	4,512	150	15 by 7, f. f. c.	18	100 00	Part; residue \$150, (19.)	78
29,394	23,316	54,710	34,162	1,138	12 by 7, f. f.	12	90 00		79
3,106	1,673	4,779	4,319	143		12	86 48		80
22,027	8,704	30,731	28,790	959	Baggage car	16*	85 75		81
7,366	4,310	11,676	8,893	296	Apartment, f. f.	12	85 11	Route agent paid by railroad company.	82
4,103	1,872	5,975	3,421	114	Baggage car	12	76 80	Includes side service.	83
19,519	16,577	36,096	21,398	713	Commodious	6	75 00	In June, 1868	84
32,434	22,209	54,643	21,307	710	17.6 by 9.8½, f. f. c. and m. c.	12	75 00		85
				600		6	75 00	In July, 1868.	86
16,841	23,546	40,387	17,929	597	11 by —, f. f., a. l.	12	75 00		87
21,624	10,460	32,084	15,212	507	10.8 by 6.7, f. f., a. l.	12	75 00		88
33,596	37,849	71,445	14,285	476	8 by 10½, f. f. c., a. l.	13	75 00	Part; residue \$100, (59.)	89
10,498	9,986	20,484	12,987	432	11.4 by 6.7, 11 by 6.4, f. f., d. l.	12	75 00		90
8,952	4,122	13,080	12,686	422	11.4 by 6.7, 11.6 by 6.4, f. f., d. l.	18	75 00	Part; residue \$100, (65.)	91
7,867	12,075	19,942	12,057	401	8 by 17, fixtures.	7	75 00	In January, 1869.	92
6,502	5,325	11,833	11,833	394	15 by 9, f. f. c.	12	75 00	In November, 1867.	93
9,504	4,756	14,260	9,076	302	10 by 6.2, f. f.	6	75 00	In August, 1868	94
9,154	5,503	14,657	7,431	247	5 by 14, f. f.	6	75 00	In September, 1867.	95
8,702	4,654	13,356	7,352	245	12 by 6.6, f. f., a. l.	18	75 00		96
5,371	3,355	8,726	6,810	227	Baggage car	12	75 00		97

E.—Table showing the weights of mails, the accom

Order.	State.	No. of route.	New number of route.	Terminal.	Corporate title of company carrying the mail.	Length of route. Miles.
98	Conn.	939	941	Granby, Northampton	New Haven and Northampton	32
99	Mass	641	641	South Framingham, Milford	Boston and Albany	12
100	Wis.	13012		Sheboygan, Glenbeulah	Sheboygan and Fond du Lac	20½
101	N. Y.	1499	1043	Brocton, Corry	Buffalo, Corry, and Pittsburg, (late Buffalo and Oil Creek Cross Cut.)	43.3
102	Mid.	2910		Weverton, Hagerstown	Baltimore and Ohio	24½
103	Mass.	629	629	Lowell, Lawrence	Boston and Lowell and Nashua and Lowell.	14
104	N. Y.	1013	1007	Mineola, Glen Cove	Long Island	10
105	Mass.	607	607	Boston, Southbridge	Boston, Hartford and Erie	70
106	Mass.	737	727	Gloucester, Pigeon Cove	Eastern	64
107	N. Y.	1010	1005	Stapleton, Tottenville.	Staten Island	21
108	Mass.	637	637	Groton Junct'n, Mason Village	Fitchburg	23
109	Mass.	679	676	Taunton, Middleboro'	Middleboro' and Taunton	9½
110	Pa.	2208	1806	Philadelphia, Darby	Philadelphia and Darby	8
111	N. Y.	1513	1044	New York, Sayville.	South Side	49
112	N. Y.	1321	1035	Buffalo, Corning	Erie	142
	N. Y.	1321	1035	Buffalo, Attica	Erie	31
	N. Y.	1321	1035	Attica, Corning	Erie	111
113	Conn.	944	943	Bridgeport, Pittsfield, State Line.	Housatonic	121
114	N. H.	255	255	Concord, Bradford	Concord and Claremont	96
115	N. Y.	1324	1038	Attica, Hornellsville	Erie	60
116	N. H.	279	278	Nashua, Wilton	Boston and Lowell and Nashua and Lowell.	16
117	Mass.	635	635	South Acton Depot, Hudson	Fitchburg	9
118	Me.	116	117	Portland, Bar Mills	Portland and Rochester	18
119	R. I.	803	803	Providence, Bristol	Providence, Warren and Bristol	15½
120	Mass.	636	636	Groton Junction, Lowell	Boston and Lowell and Nashua and Lowell.	17
121	Mass.	632	632	Porter's Station, Lexington	Lexington and Arlington	8
122	N. Y.	1320	1034	Suspension Bridge, Detroit	Great Western of Canada	229
123	Ill.	11412		Bureau Junction, Peoria	Chicago, Rock Island and Pacific	47
124	N. Y.	1323		Buffalo, Lewiston	New York Central	29
125	Iowa	11007		Davenport, Des Moines	Chicago, Rock Island and Pacific	233
126	Mich.	12508		Detroit, Port Huron	Chicago, Detroit and Grand Trunk Junction.	64½
127	Ohio	9020		Portsmouth, Reed's Mills	Marietta and Cincinnati	56
128	Ga.	6008		Kingston, Rome	Rome	20½
129	Ohio	9006		Cleveland, Youngstown	Erie, (lessees Atlantic and Great Western.)	67
	Ohio	9006		Cleveland, Leavittsburg	Erie, (lessees Atlantic and Great Western.)	50
	Ohio	9006		Leavittsburg, Youngstown	Erie, (lessees Atlantic and Great Western.)	17
130	N. Y.	1206	1025	Utica, Lowville	Utica and Black River	59
131	Pa.	1809		Lackawaxon, Honesdale	Erie, (lessees Atlantic and Great Western.)	25
132	N. Y.	1286	1033	Avon, Mount Morris	Avon, Genesee and Mount Morris	16
133	Me.	19	19	Farmington, Brunswick	Androscoggin	70½
134	N. H.	268	256	Concord, Portsmouth	Concord, Manchester and Lawrence.	60
135	Pa.	1646		Meadville, Oil City	Erie, (lessees Atlantic and Great Western.)	38
136	Pa.	2337	1813	Pottsville, Tamaqua	Philadelphia and Reading	17½
137	Pa.	2624	1843	Pittsburg, Uniontown	Pittsburg and Connellsville	72
138	Ala.	6729		Gainesville, Gainesville Junct'n	Miss., Gainesville and Tuscaloosa	22
139	N. H.	331	331	Littleton, Wells River	Boston, Concord and Montreal	21
140	Mass.	619	619	Salem, Gloucester	Eastern	16
141	N. Y.	10826	1014	Central Bridge, Schoharie	Schoharie Valley	5
142	Mass.	606	606	Boston, Woonsocket Falls	Boston and Albany	38.68
143	N. H.	309	308	Dover, Alton Bay	Boston and Maine	28
144	Iowa	11007		Wilton Junction, Muscatine	Chicago, Rock Island and Pacific	13.2
145	N. Y.	1518	1509	Buffalo, East Aurora	Buffalo and Washington	17.74
146	Mid.	3214	2907	Relay Junction, Union Bridge	Western Maryland	44.3

modations for mails and agents, &c.—Continued.

Whole weight carried any distance for thirty days.			Aver. weight carried while distance.		Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Remarks.	Order.
Out- ward.	In- ward.	Total.	30 d'ys. total.	Per-day, total.					
<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Feet and inches.</i>				
3,818	3,364	7,182	5,742	191	11.6 by 6.7, f. f.	6	\$75 00	Extended July 1, 1869, to Williamsburg and New Haven.	98
4,278	2,704	6,982	5,390	179	Baggage car	18	75 00		99
2,153	4,732	6,885	5,302	173	6 by 8, fixtures	6	75 00	In November, 1867	100
4,477	2,960	7,437	4,157	138	8 by 12, 8 by 10, f. f.	6	75 00	\$206 extra paid for side service.	101
2,740	2,000	4,740	3,335	111		12	75 00	In July, 1868.	102
1,470	1,199	2,669	2,312	77	Locker in b. c. 36 cubic ft.	21	75 00		103
2,428	711	3,139	2,289	76	Baggage car	12	75 00		104
9,801	7,585	17,386	4,090	136	12 by 6½, f. f.	12	74 48		105
1,395	891	2,286	1,628	54	Baggage car	10	69 23		106
				142		12	66 66	8 miles side service included.	107
3,129	2,048	5,167	3,501	116		6	65 22		108
777	869	1,646	1,242	41	Baggage car	12	63 16		109
		675	675	26		6	62 50	26 days. In June, 1868.	110
3,404	2,743	6,147	3,577	119	8 by 8, f. f.	6	61 22	Includes side service.	111
41,496	77,542	119,038	32,470	1,082	20 by 11, 26 by 11, 42.4 by 11, f. f. c., r. p. o.	14½	60 00		112
			81,356	2,712	26 by 11, 42.4 by 11, f. f. c., r. p. o.	24	60 00	Part to Attica	
			18,818	627	20 by 11, f. f. c.	12	60 00	Part beyond Attica	
28,818	15,899	44,717	18,935	631	12 by 6, f. f., s. l.	8½	59 39		113
6,976	5,064	12,040	7,255	241	8.6 by 6.6, f. f.	6	57 69		114
62,517	28,925	91,445	82,922	2,764	r. p. o., 26 by 11, f. f. c., Way, 20 by 11, f. f. c.	12	56 67		115
7,126	5,135	12,261	9,576	319	Locker in b. c. 36 cubic ft.	12	56 25		116
1,443	1,023	2,466	1,984	66		12	55 56		117
7,145	2,911	10,056	5,341	177	Baggage car	6	55 55		118
5,535	3,880	9,415	7,202	240	Express car	12	55 16		119
3,437	2,359	5,796	4,519	151	Locker in b. c. 36 cubic ft.	15	52 94		120
1,715	1,210	2,925	972	32		12	51 12		121
81,790	21,646	103,436	103,436	3,336	Through baggage car	25	50 00	31 days	122
19,996	8,471	28,467	24,455	873	9 by 20, f. f. c.	6	50 00	28 days. In Dec., 1867.	123
18,410	8,154	26,564	19,884	662	Baggage car	12	50 00	In November, 1867.	124
24,783	10,144	34,927	17,341	619	9 by 20, f. f. c.	6	50 00	28 days. Main route. Branch, (144.) In December, 1867.	125
16,547	6,313	22,860	18,422	614	6.8 by 14, f. f. c., s. l.	12	50 00		126
7,085	18,363	26,028	16,409	548			50 00	Returns imperfect. In November, 1868.	127
11,610	3,638	15,248	15,098	503	First class, f. f.	6	50 00	In February, 1869.	128
16,580	7,506	24,086	14,567	485	8 by 10½, f. f. c.	6	50 00		129
15,213	6,466	21,679	17,942	598	8 by 10½, f. f. c.	6	50 00	Part to Leavittsburg.	
4,899	2,940	7,839	4,649	155	8 by 10½, f. f. c.	6	50 00	Part beyond Leavitts- burg.	
14,308	7,986	22,294	12,249	408	Baggage car	9½	50 00		130
7,565	5,793	13,358	10,305	343	Baggage car	6	50 00		131
7,528	5,156	12,684	9,865	328	Baggage car	8	50 00		132
6,446	11,493	17,939	9,630	321	7 by 12, f. f.	6½	50 00		133
6,856	6,994	13,852	8,590	286	10 by 6.10, f. f., s. l.	12	50 00		134
6,556	5,908	12,464	8,561	285	8 by 10½, f. f. c.	6	50 00		135
3,873	4,609	8,482	7,314	281	Baggage car	12	50 00	26 days. In June, 1868	136
9,054	5,713	14,767	8,133	271	10 by 12, f. f.	6	50 00	In June, 1868.	137
3,386	4,234	7,620	6,620	254	Box	6	50 00	In June, 1868.	138
2,441	6,383	8,824	7,395	245	10.6 by 6, f. f. c.	6	50 00		139
5,057	3,664	8,721	7,347	244	Baggage car	12	50 00		140
3,708	2,581	6,289	6,289	209		15	50 00		141
7,301	5,039	12,400	6,017	200	Baggage car	13½	50 00		142
5,633	3,246	8,879	5,974	199	Baggage car	6	50 00	Offener when cars run.	143
4,322	1,248	5,570	5,770	199		6	50 00	Branch. Main route, (125.)	144
4,527	2,543	7,072	5,965	198	Baggage car	6	50 00	28 days. Dec., 1867.	145
5,531	3,126	8,647	5,661	188	Baggage car	6	50 00	In May, 1868.	146

E.—Table showing the weights of mails, the accom

Order.	State.	No. of route.	New number of route.	Termini.	Corporate title of company carrying the mail.	Length of r'te.
						<i>Miles.</i>
147	Mich.	12810	.....	Jackson, Hastings	Grand River Valley	62
148	Iowa	11008	.....	Muscatine, Washington	Chicago, Rock Island and Pacific	37. 77
149	Mass.	602	602	Rollingsford, Great Falls	Boston and Maine	3
150	N. H.	300	299	Contoocook Village, Hillsboro' Bridge	Contoocook River	15
151	N. H.	310	309	Brock's Crossing, Union	Portsmouth, Gt. Falls and Conway	26
152	N. Y.	1460	1041	Chester, Warwick	Warwick Valley	11
153	Ohio	9028	.....	Hamilton, Newcastle, Indianapolis	Cincinnati and Indianapolis Junction	124
154	Mass.	707	703	South Vernon Junction, Keene	Cheshire and Ashuelot	24
155	N. Y.	1519	1510	Schoharie, Middleburg	Middleburg and Schoharie	54
156	Pa.	2656	1839	Cresson, Ebensburg	Ebensburg and Cresson	11. 3
157	N. Y.	1091	1015	Schenectady, Ballston	Rensselaer and Saratoga	16
158	N. Y.	1067	1011	Hudson, West Stockbridge	Hudson and Boston	35
159	N. Y.	1322	.....	Buffalo, Lockport	New York Central	22
160	Mass.	617	617	Boston, Dedham	Boston and Providence	11
161	Md.	2909	.....	Salisbury, Berlin	Wicomico and Pokomoke	23
162	N. H.	254	254	Franklin, Bristol	Northern	13
163	Mass.	740	728	Wakefield, Newburyport	Boston and Maine	304
164	Ohio	9506	9039	Youngstown, Cross-cut	Pittsburg, Ft. Wayne and Chicago	20. 8
165	N. H.	269	269	Manchester, North Ware	Concord, Manchester and Lawrence	204
166	Mass.	631	631	Winchester, Woburn	Boston and Lowell and Nashua and Lowell	3
167	N. Y.	1303	.....	Batavia, Attica	New York Central	11
168	Mass.	616	616	Boston, West Lynn Depot	Eastern	10
169	Mass.	610	610	Boston, Medford	Boston and Maine	54
170	Mass.	708	704	Chicopee, Chicopee Falls	Connecticut River	2
171	Ohio	9025	.....	Carey, Findlay	Cincinnati, Sandusky and Cleveland	16
172	Mass.	739	621	Salem, Lawrence	Eastern	20
173	Mass.	645a	618	Grafton, Milbury	Boston and Albany	4. 2
174	Mass.	639	639	Natick, Saxonville	Boston and Albany	4
175	Mass.	638	638	Auburndale Station, Newton Lower Falls	Boston and Albany	2
176	Mass.	620	620	Salem, Marblehead	Eastern	4
177	Fla.	6405	.....	Tallahassee, St. Mark's	Tallahassee	212
178	Minn.	13659	.....	La Crosse, Lanesboro'	Southern Minnesota	514
179	N. Y.	1283	1032	Rochester, Avon	Erie	18
180	Me.	161	163	Mechanics' Falls, Hartford	Portland and Oxford Central	214
181	N. Y.	1022	1009	Sufferna, Piermont	Erie	18
182	N. Y.	1387	1040	Owego, Ithaca	Del., Lackawanna and Western	33
183	N. Y.	1136	1021	Plattsburg, Canada Line	Montreal and Plattsburg	23
184	N. Y.	1035	1010	Newburg, Chester	Erie	19
185	Mass.	633	633	Lexington Depot, Bedford	Lexington and Arlington	4
186	N. Y.	1242	1046	Skaneateles Junction, Skaneateles	Skaneateles	54
187	Pa.	2615	1816	Hazleton, Hazle Creek Bridge	Lehigh Valley, (late Hazleton)	10. 56
188	Pa.	1824	.....	Alton, Carrollton	Erie, (deserves Atlantic and Great Western.)	25
189	Mass.	656	655	South Abington, Bridgewater	Old Colony and Newport	73
190	Ohio	9019	.....	Blanchester, Hillsboro'	Marrietta and Cincinnati	21
191	N. Y.	1514	1045	Goheen, Montgomery	Montgomery and Erie	10
192	Me.	83	84	Calais, Princeton	Lewy's Island	22
193	N. C.	5263	5008	Fayetteville, Egypt	Western, (of North Carolina)	45

modations for mails and agents, &c.—Continued.

Whole weight carried any distance for thirty days.			Aver. weight carried while distance.		Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Remarks.	Order.
Outward.	Inward.	Total.	30 d'ys, total.	Per day, total.					
<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Pds.</i>	<i>Feet and inches.</i>				
6,274	3,352	9,626	5,566	185	11 by 6.6	12	\$50 00		147
5,214	1,751	6,965	5,092	181	9 by 20, f. f. o	6	50 00	28 days. In Dec., 1867.	148
3,516	1,786	5,302	5,302	176		12	50 00	Branch; main route, \$150, (34.)	149
3,130	2,831	5,961	4,979	165	9 by 3, f. f.	6	50 00		150
4,215	2,682	6,897	4,369	146	Baggage car	7½*	50 00		151
2,432	2,295	4,727	4,169	139	Express car	12	50 00		152
9,574	8,456	18,030	4,123	137	10 by 7.10, 6 by 7.6, f. f.	6	50 00		153
2,621	7,254	9,935	3,355	112	13.8 by 7.1, f. f.	6	50 00		154
2,400	955	3,355	3,355	112	Baggage room	12	50 00		155
1,907	1,418	3,325	3,325	111	Baggage room, 8 by 8	12	50 00	In April, 1868.	156
2,147	1,530	3,677	3,237	107	Baggage car	12	50 00		157
4,421	2,442	6,763	3,038	101	Baggage car	12	50 00		158
1,673	1,472	3,145	2,953	98	Baggage car	12	50 00	In November, 1867.	159
1,816	1,282	3,098	2,886	94		12	50 00		160
1,817	1,735½	2,552½	2,552½	94		6	50 00	27 days. In July, 1868.	161
2,108	1,120	3,228	2,721	90		6	50 00	Branch; main route, \$140, (20.)	162
3,872	3,007	6,879	2,469	82	Baggage car	6	50 00	Often when cars run.	163
1,528	2,485	3,813	2,483	82		6	50 00	In June, 1868	164
2,526	1,287	3,813	2,285	76	Baggage car	6	50 00		165
1,352	798	2,140	2,140	71	Locker in b. c., 36 cubic ft.	12	50 00		166
972	1,227	2,199	2,127	71	Baggage car	6	50 00	In November, 1867.	167
1,443	1,112	2,555	2,064	68	Baggage car	12	50 00		168
1,110	755	1,865	1,865	62	Baggage car	6	50 00	Often when cars run	169
1,042	799	1,841	1,841	61		21*	50 00		170
1,567	539	2,126	1,816	60	Baggage car, no. r. a	6	50 00	12 trips proposed in future.	171
3,624	2,590	6,214	1,436	48	Baggage car	6	50 00		172
809	436	1,345	1,345	44	Baggage car	12	50 00		173
610	374	984	984	33	Baggage car	12	50 00		174
473	325	798	798	26		6	50 00		175
322	337	665	665	22	Baggage car	6	50 00		176
136	125	261	261	8	6 by 7, f. f.	6	50 00	In March, 1868.	177
8,178	2,725	10,903	7,598	253	Ordinary car, boxes.	6	47 37	In February, 1869.	178
9,787	5,170	14,957	14,253	475	Baggage car	6	44 44		179
1,916	945	2,861	1,791	59	Baggage car	6	43 33		180
14,680	6,296	20,976	18,183	113	6½ by 7½, f. f. o	6	42 89	Old returns	181
4,434	7,577	12,011	9,483	606	7½ by 7½, f. f. a. l.	12	42 88		182
2,997	3,029	6,026	4,358	316	In charge of baggage master.	9*	42 87		183
381	233	614	614	145	Baggage car	6	42 84		184
2,747	1,705	4,452	3,994	20		12	41 25		185
				133	Baggage car	12	40 22		186
		2,353	2,353	94	Baggage car	6	40 00	25 days. In May, 1867	187
1,535	2,111	3,666	2,373	79	Baggage car	6	40 00		188
504	972	1,476	738	24	Baggage car	6	38 93		189
		5,151	2,576	86		37 50		Returns imperfect. In November, 1868.	190
1,216	650	1,866	1,639	54	Passenger car	9*	30 00	In charge of conductor.	191
16,918	16,205	33,123	31,389	1,046	6 by 8.	6	25 00	Through mails estimated at 1,000 lbs. per day.	192
1,412	1,704	3,116	2,832	94	In conductor's office	2	20 50	In August, 1867.	193

GILES A. SMITH,
Second Assistant Postmaster General.

F.—Table showing the readjustment of the rates of pay per mile on certain railroad routes, mails and agents of

[ABBREVIATIONS.—*f. f.*, fixtures and furniture; *f. f. c.*, fixtures and furniture complete; *m. c.*, mail agents; *w. t.*, way trains; *m. m.*, mail messenger. A number followed by an asterisk (*) shows the in parentheses in the remarks column refer to the order of the routes in this table.]

Order.	State.	Number of route.	New number of route.	Termini.	Corporate title of company carrying the mail.	Length of route.	Average weight of mails whole dist. per day.
						Miles.	Pds.
1	Md.	2903	.....	Baltimore, Washington.....	Baltimore and Ohio.....	40	22, 521
2	Conn.	941	939	New Haven, New York.....	New York and New Haven..	76½	16, 273
3	Mass.	605	605	Boston, Worcester.....	Boston and Albany.....	45	15, 239
						56*	15, 239
4	Mass.	688	605	{ Worcester, Springfield..... }	.....do.....	102	6, 542
				{ Springfield, Albany..... }		63 5-6	12, 238
5	Conn.	938	937	New Haven, Springfield.....	Hartford and New Haven...		
						67	10, 173
6	N. Y.	1001	1001	{ New York, Middletown..... }	Erie.....	265	8, 994
				{ Middletown, Hornellsville.. }		22	4, 576
				{ Hornellsville, Salamanca... }		46	3, 391
				{ Salamanca, Dunkirk..... }		179	7, 662
7	Md.	2904	.....	{ Baltimore, Cumberland..... }	Baltimore and Ohio.....	201	6, 836
8	Mass.	601	601	{ Cumberland, Wheeling..... }	Eastern.....	56½	4, 569
				{ Boston, Portsmouth..... }		80	2, 764
9	N. Y.	1324	1038	Attica, Hornellsville.....	Erie.....	31	2, 712
					do.....	111	637
10	N. Y.	1321	1035	{ Buffalo, Attica..... }		32	3, 050
				{ Attica, Corning..... }		67½	3, 050
11	Vt.	484	482	{ Bellows Falls, Rutland..... }	Rutland and Burlington.....	224½	3, 225
				{ Rutland, Burlington..... }		26	712
12	Mo.	10501	.....	{ St. Louis, Kansas City..... }	Pacific, of Missouri.....	186.6	2, 633
13	Ky.	9608	.....	{ Kansas City, Leavenworth.. }		23	2, 370
				{ Louisville, Nashville..... }		30½	150
14	N. Y.	1095	1017	{ Troy, Eagle Bridge..... }	Troy and Boston.....	44	1, 308
				{ Eagle Bridge, State Line, N. Adams..... }		50	1, 227
15	Mass.	608	608	Boston, Providence.....	Boston and Providence.....		
16	Conn.	937	936	New Haven, New London.....	New Haven and New London		
17	Tenn.	10002	.....	Knoxville, Chattanooga.....	East Tennessee and Georgia	112	6, 150
18	Tenn.	10001	.....	Knoxville, Bristol.....	East Tennessee and Virginia	130.7	5, 842
19	Ohio.	9491	9035	Harrison Junction, Hagers-town.	Indianapolis, Cincinnati and Lafayette.	69.7	1, 492
20	Mass.	609	609	Boston, Plymouth.....	Old Colony and Newport....	37½	1, 051
21	N. Y.	1212	1026	Rome, Pottsdam Junction, Og-densburg.	Rome, Watertown and Og-densburg.	167	1, 253
22	Me.	114	115	Portland, Bath, Augusta.....	Portland and Kennebec.....	73	1, 139
23	Tenn.	10002	.....	Cleveland, Dalton.....	East Tennessee and Georgia.	28½	1, 234
24	R. I.	802	802	Providence, New London.....	New York, Providence and Boston.	63½	936
25	N. Y.	1011	1006	New York, Greenport.....	Long Island.....	100½	830
26	N. H.	253	253	Concord, Wells River.....	Boston, Concord, and Mon-treal.	93	796
27	Mass.	655	654	South Braintree Junction, New- port.	Old Colony and Newport....	61½	755
28	N. Y.	1026	1013	Albany, Binghamton.....	Albany and Susquehanna...	142	710
						30	634
29	Conn.	927	926	{ New London, Willimantic.. }	New London Northern.....	35	422
				{ Willimantic, Palmer..... }			
30	Ohio.	9013	.....	Dayton, Sandusky.....	Cincinnati, Sandusky and Cleveland.	156	698
31	Mich.	12508	.....	Detroit, Port Huron.....	Chicago, Detroit and Grand Trunk Junction.	64½	614

based upon returns of the weight of the mails conveyed, the accommodations provided for the department, &c.

catchers; b. a., baggage car; r. p. o., railway post office; d. l., double line; s. l., single line; r. a., route equivalent in round trips, a more particular statement in tabular form being inconvenient. The figures

Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Former pay per mile per annum.	Amount of annual pay.	Former amount of annual pay.	Date of readjustment.	Remarks.	Order.
<i>Feet and inches.</i>	<i>No.</i>	<i>Dolla.</i>	<i>Dolla.</i>	<i>Dolla.</i>	<i>Dolla.</i>			
r. p. o., d. l.	26	375 00	300 00	15,000 00	12,000 00	July 1, 1868	Ordered Dec. 30, 1868	1
r. p. o., d. l., and r. a. on w. t.	31	375 00	325 00	28,625 00	24,808 33	Dec. 16, 1867	Ordered Jan. 2, 1869	2
r. p. o., 4 lines daily, 23.6 by 8.3, 2 by 8.6, 12 by 6, f. f. c.	33*	375 00	300 00	16,875 00	13,500 00	Aug. 15, 1868	Ordered Jan. 2, 1869	3
r. p. o., 4 lines daily, 23.6 by 8.3, 2 by 8.6, 12 by 6, f. f. c.	33*	375 00	250 00					
r. p. o., d. l., 23 by 9, 2 by 9, f. f. c.	18	300 00	300 00	51,600 00	34,350 00	Aug. 15, 1868	Ordered Jan. 2, 1869	4
r. p. o., d. l., and r. a. on w. t., 23.9 by 13.6, f. f. c.	31	325 00	275 00	20,745 83	17,554 17	Dec. 16, 1867	Ordered Jan. 2, 1869	5
r. p. o., d. l., and r. a. on w. t.	234*	300 00	300 00					
r. p. o., d. l.	17*	275 00	275 00					
r. p. o., s. l., and r. a. on w. t.	164*	250 00	275 00	122,675 00	128,175 00	Mar. 1, 1869	Proposed.....	6
r. p. o., s. l.	7	200 00	275 00					
15 by —, f. f. c.	18	247 10	300 00	93,900 00	83,900 00	July 1, 1868	Ordered Feb. 16, ...	7
r. p. o., 30 by 8.6, f. f. c., and m. c., d. l.	31*	200 00	175 00	11,300 00	9,887 50	Aug. 20, 1868	Ordered June 24, '69	8
r. p. o., 26 by 11, f. f. c., way 20 by 11, f. f. c.	12	200 00	56 67	12,000 00	3,400 00	Mar. 1, 1869	Proposed.....	9
r. p. o., 26 by 11, 42.4 by 11, f. f. c.	24	200 00	60 00	17,300 00	8,520 00	Mar. 1, 1869	Proposed.....	10
20 by 11, f. f. c.	12	100 00	60 00					
17 by 6.4, 14 by 6.4, f. f. c., s. l.	6	100 00	140 00	19,405 00	19,405 00	July 1, 1869	\$2,000 side service.	11
.....	15*	175 00	150 00	32,037 50	44,975 00	Jan. 1, 1869	.....	12
.....	12	100 00	100 00	32,655 00	27,990 00	July 27, 1869	.....	13
r. p. o.	14	175 00	150 00	6,150 00	7,350 00	July 1, 1869	{ \$600 m. m. service }	14
15 by 7, f. f. c.	18	50 00	100 00				{ 2 miles decrease. }	
No mail agent.	25	150 00	202 50	6,900 00	8,910 00	July 1, 1869		15
8.9 by 6.2, 8.6 by 6.6, f. f. c., s. l.	23*	150 00	200 00	7,567 00	10,067 00	July 1, 1869	\$67 side service....	16
r. p. o.	14	125 00	100 00	14,000 00	11,200 00	Oct. 1, 1868	Main route. Branch \$100. (23.)	17
r. p. o.	14	125 00	100 00	16,337 50	13,070 00	Oct. 1, 1868		18
7.6 by 12, f. f. c.	12	125 00	49 00	2,712 50	2,465 00	July 1, 1868	19.4 miles increase.	19
r. p. o., (11 1/4 miles), 10.1 by 6.4, f. f. c., s. l.	12	125 00	144 00	4,687 50	5,400 00	July 1, 1869	Ordered Nov. 13, '68	20
6.10 by 20, f. f. c., s. l.	16*	115 00	100 00	19,205 00	16,700 00	July 1, 1869	With 1024, '42, (54, 56)	21
15 by 8, f. f. c.	10*	113 35	100 00	8,275 00	7,300 00	July 1, 1869	With 1, (45)	22
22 by —, f. f. c.	14	100 00	50 00	2,850 00	1,425 00	Jan. 1, 1869	Branch. Main route \$125. (17.)	23
6 by 12, f. f. c. and b. c. 8 by 16.	22*	100 00	190 00	6,375 00	12,112 50	July 1, 1869	Proposed.....	24
10 by 8, f. f. c., s. l., 47 miles; residue b. c.	9*	100 00	96 02	12,050 00	11,650 00	July 1, 1869	\$2,000 m. m. service	25
10 by 6.6, f. f. c.	94*	100 00	107 50	9,300 00	10,000 00	July 1, 1869	.....	26
r. p. o., (23 miles), 10.1 by 6.4, f. f. c., s. l.	12	100 00	121 42	6,175 00	7,498 00	July 1, 1869	.....	27
17.6 by 9.2, f. f. c., and m. c.	12	100 00	75 00	14,200 00	10,650 00	Apr. 1, 1869	.....	28
11.4 by 6.7, 11 by 6.4, f. f. c., d. l.	23*	100 00	85 83					
11.4 by 6.7, 11.6 by 6.4, f. f. c., d. l.	18	75 00	75 00	5,625 00	5,275 00	July 1, 1869	1 mile decrease....	29
9 by 22, f. f. c.	12	100 00	125 00	15,600 00	19,500 00	July 1, 1868	Decided June 18, '69	30
6.8 by 14, f. f. c., s. l.	12	100 00	75 00	6,425 00	4,818 75	July 1, 1869	.....	31

F.—Table showing the readjustment of the rates of

Order.	State.	Number of route.	New number of route.	Terminal.	Corporate title of company carrying the mail.	Length of route.	Average weight of mails whole dist. per day.
						Miles.	Pds.
33	Mass	680	677	Taunton, Mansfield Junction.	Taunton Branch.....	12	613
33	Mass	694	690	Fitchburg, Brattleboro', Hoosac Tunnel.	Vermont and Massachusetts	108	423
34	Ind.	12105	.....	{ New Albany, Mitchell..... } { Mitchell, Michigan City..... }	Louisville, New Albany, and Chicago.	{ 61 227	{ 876 366 }
35	Md.	2908	.....	Annapolis Junction.	Annapolis and Elk Ridge....	90	226
36	Conn.	944	943	Bridgeport, Pittsfield, State Line.	Housatonic.....	121	631
37	Ohio	9006	.....	{ Cleveland, Leavittsburg.... } { Leavittsburg, Youngstown.... }	Erie, (lessees Atlantic and Great Western.)	{ 50 17	{ 592 155 }
38	N. Y.	1236	1029	Syracuse, Oswego.....	Oswego and Syracuse.....	35½	584
39	N. Y.	1283	1032	Rochester, Avon.....	Erie.....	18	475
40	Mass.	681	678	Taunton, New Bedford.	New Bedford and Taunton..	20½	470
41	R. I.	801	801	Providence, Worcester.	Providence and Worcester..	44	463
42	Mass	700	696	Palmer, Grout's Corner.....	New London Northern.....	35	432
43	Ala.	6609	.....	Selma, Rome.....	Selma, Rome and Dalton....	197½	401
44	Conn.	933	932	Middletown, Berlin Depot.	Hartford and New Haven....	10	374
45	Me.	1	1	Augusta, Skowhegan.....	Portland and Kennebec.....	39	353
46	Pa.	1809	.....	Lackawaxen, Honesdale.....	Erie, (lessees A. and G. W.)..	25	343
47	Me.	19	19	Farmington, Brunswick.	Androscoggin.....	70½	321
48	Mass.	692	688	Sterling Junction, Fitchburg.	Fitchburg and Worcester..	14	225
49	Pa.	1846	.....	Meadville, Oil City.....	Erie, (lessees A. and G. W.)..	38	285
50	N. Y.	1206	1025	Utica, Lowville.....	Utica and Black River.....	59	408
51	Conn.	926	925	Norwich, Worcester.....	Norwich and Worcester.....	60	349
52	Mass	725	721	Pittsfield, North Adams.....	Pittsfield and North Adams..	21	227
53	N. Y.	1286	1033	Avon, Mount Morris.....	Avon, Genesee and Mount Morris.	16	322
54	N. Y.	1159	1024	Watertown, Cape Vincent.....	Rome, Watertown and Ogdensburg.	96	291
55	Vt.	477	475	Rutland, State Line, Bennington.	Bennington and Rutland....	59	223
56	N. Y.	1497	1042	Oswego, Richland.....	Rome, Watertown and Ogdensburg.	28½	120
57	Mass.	641	641	South Framingham, Milford.	Boston and Albany.....	12	179
58	Me.	116	117	Portland, Alfred.....	Portland and Rochester.....	32	177
59	Mass	657	656	Braintree Depot, Cohasset.	South Shore.....	12	169
60	Mass	636	636	Groton Junction, Lowell.	Boston and Lowell and Nashua and Lowell.	17	151
61	N. Y.	1035	1010	Newburg, Chester.....	Erie.....	19	145
62	Conn.	973	972	Vernon Depot, Rockville.....	Hartford, Providence and Flahkill.	4½	143
63	N. Y.	1010	1005	Stapleton, Tottenville.....	Staten Island.....	21	142
64	N. Y.	1499	1043	Brooklyn, Corry.....	Buffalo, Corry and Pittsburg.	45.3	138
65	Mass	607	607	Boston, Southbridge.....	Boston, Hartford and Erie..	70	136
66	Mass	675	672	New Bedford, West Wareham.	New Bedford and Taunton..	16½	133
67	N. Y.	1242	1046	Skanateles Junction, Skanateles.	Skanateles.....	5½	133
68	N. Y.	1513	1044	New York, Sayville.....	South Side.....	49	119
69	N. Y.	1014a	1008	Hicksville, Northport.....	Long Island.....	16½	114
70	Mass.	637	637	Groton Junction, Mason Village.	Fitchburg.....	23	116
71	N. Y.	1028	1009	Sufferns, Piermont.....	Erie.....	18	113
72	N. Y.	1013	1007	Mineola, Locust Valley.....	Long Island.....	12½	76
73	Mass.	629	629	Lowell, Lawrence.....	Boston and Lowell and Nashua and Lowell.	14	77
74	Mass.	635	635	South Acton Depot, Hudson.	Fitchburg.....	9	66
75	Mass	737	727	Gloucester, Pigeon Cove.....	Eastern.....	6½	54
76	Mass.	679	676	Taunton, Middleboro'.....	Middleboro' and Taunton..	9½	41
77	Mass	632	632	Porter's Station, Lexington.	Lexington and Arlington....	8	32
78	N. Y.	1514	1045	Goshen, Montgomery.....	Montgomery and Erie.....	10	54

Excess of present over former amount of annual pay.....

pay per mile on certain railroad routes, &c.—Continued.

Size, &c., of mail car or apartment.	Trips per week.	Pay per mile per annum.	Former pay per mile per annum.	Amount of annual pay.	Former amount of annual pay.	Date of readjustment.	Remarks.	Order.
<i>Feet and inches.</i>		<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>			
Baggage car.....	25	100 00	150 00	1,500 00	1,800 00	July 1, 1869	\$300 m. m. service...	32
14 by —, d. l.....	12	100 00	77 17	10,800 00	8,334 36	Apr. 1, 1868	Ordered Apr. 5, 1869	33
6 6 by 10, f. f.....	12	100 00	100 00	28,800 00	23,125 00	Jan. 1, 1869	.....	34
46 by 2 1 by 1 11, (box)	13	100 00	142 80	2,000 00	2,858 00	July 1, 1868	Ordered Jan. 1, 1869	35
13 by 6 1 f., d. l.....	8 1/2	80 00	59 39	9,680 00	7,186 00	July 1, 1869	Company pay r. a. on second line.	36
8 by 10 1/2, f. f. c.....	6	{ 75 00 50 00 }	{ 50 00 50 00 }	4,600 00	3,350 00	Mar. 1, 1869	Proposed.....	37
4 by 6, locked, no agent	18	75 00	100 00	2,662 50	3,530 00	July 1, 1869	.....	38
Baggage car.....	6	75 00	44 44	1,350 00	800 00	Mar. 1, 1869	Proposed.....	39
Locked room, no agent	24 1/2	75 00	150 00	1,537 50	3,075 00	July 1, 1869	.....	40
13 by 6 3, f. f. c.....	24	75 00	134 09	3,300 00	5,900 00	July 1, 1869	.....	41
11 1/4 by 6 7, 11 by 6 4, f. f., d. l.....	12	75 00	53 00	2,625 00	1,855 00	Mar. 1, 1868	Ordered Jan. 28, 1869	42
8 by 17, fixtures.....	7	75 00	50 00	14,812 50	9,875 00	Feb. 1, 1869	.....	43
Baggage car.....	18	75 00	100 00	1,000 00	1,000 00	July 1, 1869	\$250 m. m. service.	44
15 by 8, f. f.....	6	75 00	100 00	2,925 00	3,900 00	July 1, 1869	With 115, (22)	45
Baggage car.....	6	75 00	50 00	1,875 00	1,250 00	Mar. 1, 1869	Proposed.....	46
7 by 12, f. f.....	6 1/2	75 00	50 00	5,306 25	3,537 50	July 1, 1869	.....	47
Baggage car.....	18	75 00	100 00	1,050 00	1,400 00	July 1, 1869	.....	48
8 by 10 1/2, f. f. c.....	6	75 00	50 00	2,850 00	1,900 00	Mar. 1, 1869	Proposed.....	49
Baggage car.....	9 1/2	67 79	50 00	4,000 00	2,950 00	July 1, 1869	.....	50
10 by 6 3, f. f., s. l.....	12	60 00	110 00	3,600 00	8,030 00	July 1, 1869	13 miles decrease	51
Baggage car.....	12	60 00	75 00	1,260 00	1,575 00	July 1, 1869	.....	52
Baggage car.....	12	59 37	56 25	950 00	900 00	July 1, 1869	.....	53
Baggage car.....	12	50 00	100 00	1,300 00	2,600 00	July 1, 1869	With 1026, '42, (21,56)	54
20 by —, f. f.....	6	50 00	100 00	2,950 00	5,900 00	July 1, 1869	.....	55
Baggage car.....	12	50 00	100 00	1,645 00	2,850 00	July 1, 1869	\$220 side service.	56
Baggage car.....	18	50 00	75 00	600 00	900 00	July 1, 1869	With 1024, '26, (54,21)	57
Baggage car.....	6	50 00	55 55	1,600 00	1,777 77	July 1, 1869	.....	58
Locker in b. c., 36 cu. ft.	15	50 00	112 50	1,304 00	1,350 00	July 1, 1869	\$704 m. m. service, &c	59
Baggage car.....	12	50 00	52 94	1,100 00	1,100 00	July 1, 1869	\$250 r. a.; formerly \$300.	60
Baggage car.....	6	50 00	42 84	950 00	814 00	Mar. 1, 1869	Proposed.....	61
Baggage car.....	12	50 00	86 48	500 00	500 00	July 1, 1869	\$268 75 m. m. and side service.	62
8 by 12, 8 by 10, f. f.....	6	50 00	66 66	1,800 00	1,400 00	July 1, 1869	\$750 side service.	63
12 by 6 1/2, f. f.....	12	50 00	79 55	2,471 00	3,603 50	July 1, 1869	\$306 side service.	64
12 by 6 1/2, f. f.....	12	50 00	74 48	3,500 00	5,214 00	July 1, 1869	.....	65
Locked room; no agent	15*	50 00	125 00	812 50	2,031 25	July 1, 1869	.....	66
Baggage car.....	18	50 00	40 72	350 00	224 00	July 1, 1869	\$75 m. m. service	67
8 by 8, f. f.....	6	50 00	61 22	3,000 00	3,000 00	July 1, 1869	\$550 side service.	68
Baggage car.....	12	50 00	75 76	1,250 00	1,250 00	July 1, 1869	\$425 side service.	69
Baggage car.....	6	50 00	65 22	1,150 00	1,500 00	July 1, 1869	.....	70
6 1/2 by 7 1/2, f. f. c.....	6	50 00	42 89	900 00	772 00	Mar. 1, 1869	Proposed. (Old returns.)	71
Baggage car.....	12	50 00	75 00	800 50	750 00	July 1, 1869	{ 2 1/2 miles increase }	72
Locker in b. c., 36 cu. ft.	21	50 00	75 00	700 00	1,050 00	July 1, 1869	{ \$250 side service. }	73
Baggage car.....	12	50 00	55 56	500 00	500 00	July 1, 1869	\$50 m. m. service	74
Baggage car.....	10*	50 00	69 23	450 00	450 00	July 1, 1869	\$125 m. m. service.	75
Baggage car.....	12	50 00	63 16	475 00	600 00	July 1, 1869	.....	76
Passenger car.....	12	50 00	51 12	400 00	400 00	July 1, 1869	.....	77
Passenger car.....	9*	40 00	30 00	400 00	300 00	July 1, 1869	.....	78
				803,706 56	742,852 63			
				742,852 63				
				80,853 95				

GILES A. SMITH,
Second Assistant Postmaster General.

Index to Table F.

Title.	Order.	Number of route.	New number of route.
Albany and Susquehanna	28	1086	1013
Androscoggin	47	19	19
Annapolis and Elk Ridge	35	2908	
Avon, Genesee and Mt. Morris	53	1246	1033
Baltimore and Ohio	1	2903	
Baltimore and Ohio	7	2904	
Bennington and Rutland	55	477	475
Boston and Albany	3	605	605
Boston and Albany	4	688	605
Boston and Albany	57	641	641
Boston and Lowell and Nashua and Lowell	60	636	636
Boston and Lowell and Nashua and Lowell	73	629	629
Boston and Providence	15	608	608
Boston, Concord and Montreal	26	253	253
Boston, Hartford and Erie	65	607	607
Buffalo, Corry and Pittsburgh	64	1499	1043
Chicago, Detroit and Grand Trunk Junction	31	12508	
Cincinnati, Sandusky and Cleveland	30	9013	
Eastern	8	601	601
Eastern	75	737	727
East Tennessee and Georgia	17	10002	
East Tennessee and Georgia	23	10002	
East Tennessee and Virginia	18	10001	
Erie	6	1001	1001
Erie	9	1324	1038
Erie	10	1321	1035
Erie, (lessees Atlantic and Great Western)	37	9006	
Erie	39	1283	1032
Erie, (lessees Atlantic and Great Western)	46	1409	
Erie, (lessees Atlantic and Great Western)	49	1446	
Erie	61	1035	1010
Erie	71	1028	1009
Fitchburg	70	637	637
Fitchburg	74	635	635
Fitchburg and Worcester	48	692	688
Hartford and New Haven	5	938	937
Hartford and New Haven	44	933	932
Hartford, Providence and Fishkill	62	973	972
Housatonic	36	944	943
Indianapolis, Cincinnati and Lafayette	19	9491	9035
Lexington and Arlington	77	632	632
Long Island	25	1011	1006
Long Island	69	10149	1009
Long Island	72	1013	1007
Louisville and Nashville	13	9608	
Louisville, New Albany and Chicago	34	19105	
Middleboro' and Taunton	76	679	676
Montgomery and Erie	78	1514	1045
New Bedford and Taunton	40	681	678
New Bedford and Taunton	66	675	673
New Haven and New London	16	937	936
New London Northern	29	927	926
New London Northern	42	700	696
New York and New Haven	9	941	939
New York, Providence and Boston	24	802	809
Norwich and Worcester	51	926	925
Old Colony and Newport	20	809	809
Old Colony and Newport	27	655	654
Oswego and Syracuse	38	1936	1089
Pacific, of Missouri	12	10501	
Pittsfield and North Adams	52	725	721
Portland and Kennebec	22	114	115
Portland and Kennebec	45	1	1
Portland and Rochester	58	116	117
Providence and Worcester	41	801	801
Rome, Watertown and Ogdensburg	21	1919	1086
Rome, Watertown and Ogdensburg	54	1159	1094
Rome, Watertown and Ogdensburg	56	1497	1049
Rutland and Burlington	11	484	482
Selma, Rome and Dalton	43	6609	
Skaneateles	67	1242	1046
South Shore	59	657	656
South Side	68	1513	1044
Staten Island	63	1010	1005
Taunton Branch	32	680	677
Troy and Boston	14	1095	1017
Utica and Black River	50	1806	1085
Vermont and Massachusetts	33	694	696

No. 13.—Circular of instructions.—Through mails.—Overland route to California.

POST OFFICE DEPARTMENT,

Contract Office, Washington, D. C., September, 1869.

1. Between New York and San Francisco, the route of the through mails is as follows, viz: From New York, New York, *via* Harrisburg, Pennsylvania; Pittsburg, Pennsylvania; Chicago, Illinois; Omaha City, Nebraska; Cheyenne City, Wyoming; Bryan, Wyoming; Uintah, Utah; Corinne, Utah; Promontory, Utah; Indian Creek, Utah; Elko, Nevada; Argenta, Nevada; Winnemucca, Nevada; Sacramento City, California; Stockton, California; and Oakland, California, to San Francisco, California, and back. This route runs from New York over the Central railroad of New Jersey to Harrisburg; the Pennsylvania railroad to Pittsburg; the Pittsburg, Fort Wayne, and Chicago railroad to Chicago; the Chicago and Northwestern railroad to Omaha City; the Union Pacific railroad to Promontory; the Central Pacific railroad to Sacramento City; and the Western Pacific railroad to San Francisco.

2. The through mails from Washington and from Philadelphia for San Francisco connect at Harrisburg with the route described in paragraph 1—the route from Washington, District Columbia, running over the Washington branch of the Baltimore and Ohio railroad to Baltimore, Maryland, and the Northern Central railroad to Harrisburg, Pennsylvania; and the route from Philadelphia, Pennsylvania, over the Pennsylvania railroad to Harrisburg, Pennsylvania.

3. The through mails from Boston for San Francisco connect at Chicago with the route described in paragraph 1—the route from Boston, Massachusetts, running over the Boston and Albany railroad to Albany, New York; the New York Central railroad to Buffalo, New York; the Buffalo and Erie railroad to Erie, Pennsylvania; the Lake Shore railway to Toledo, Ohio; and the Michigan Southern and Northern Indiana railroad to Chicago, Illinois.

4. The through mails from Cincinnati for San Francisco connect at Chicago with the route described in paragraph 1—the route from Cincinnati, Ohio, running over the White Water Valley division of the Indianapolis, Cincinnati and Lafayette railroad to Hagerstown, Indiana, and the Columbus, Chicago and Indiana Central railroad to Chicago, Illinois.

5. The through mails from St. Louis for San Francisco connect at Omaha City with the route described in paragraph 1—the route from St. Louis, Missouri, running over the North Missouri railroad to Macon, Missouri; the Hannibal and St. Joseph railroad to St. Joseph, Missouri; and the St. Joseph and Council Bluffs railroad to Omaha City, Nebraska.

6. Through mails from Denver City, Colorado, connect with the route described in paragraph 1 at Cheyenne City, Wyoming, on the Union Pacific railroad.

7. Through mails from Salt Lake City, Utah, connect with the route described in paragraph 1 at Uintah, Utah, on the Union Pacific railroad.

8. It is the purpose of the department to have records kept showing the times of the arrivals of mails as follows, viz:

At San Francisco, from New York, from Washington, from Boston, from Cincinnati, from Chicago, from St. Louis, from Omaha City, from Denver City, from Salt Lake City, from Promontory, and from Sacramento City;

At Sacramento City, from San Francisco, from New York, from Washington, from Boston, from Chicago, from St. Louis, from Omaha City, from Denver City, from Salt Lake City, and from Promontory;

At Salt Lake City, from San Francisco, from Sacramento City, from New York, from Washington, from Boston, from Chicago, and from St. Louis;

At Denver City, from San Francisco, from Sacramento City, from New York, from Washington, from Boston, from Chicago, from St. Louis, and from Omaha City;

At Chicago, from San Francisco, from Sacramento City, from Salt Lake City, from Denver City, from Omaha City, from Washington, from Boston, and from Cincinnati;

At St. Louis, from San Francisco, from Sacramento City, from Salt Lake City, from Denver City, and from Omaha City;

At Cincinnati, from San Francisco, from Sacramento City, and from Chicago;

At Washington, from San Francisco, from Sacramento City, from Salt Lake City, from Denver City, and from Chicago;

At Boston, from San Francisco, from Sacramento City, and from Chicago; and

At New York, from San Francisco, from Sacramento City, from Promontory, from Salt Lake City, from Denver City, and from Omaha City.

9. To enable postmasters to keep such records accurately and with facility, post-bills of a particular form are printed and furnished to the postmasters at the points named in paragraph 8. In these post-bills, blanks are provided in which to enter the month, day, and hour of the departure of the mail from the mailing office for the points at which the records are to be kept, and also blanks in which to enter the month, day, and hour of arrival at the points at which the records are to be kept.

10. One of these post-bills, with the first-mentioned blanks *carefully and properly*

filled, must accompany every mail dispatched from either of the points named in paragraph 8 for points at which records are to be kept.

11. On the arrival of mails accompanied by these post-bills at either of the points at which records are to be kept, the post-bills are to be gathered by some reliable clerk designated for the purpose, who shall carefully note thereon, in the proper blanks, the month, day, and hour of their arrival.

12. From the memoranda thus prepared, the postmasters at San Francisco, Sacramento City, Salt Lake City, Denver City, Chicago, St. Louis, Cincinnati, Washington, Boston, and New York will each make up, monthly, a "Through Mail Record," in a form printed and furnished to them for the purpose, of the arrivals of the mails daily from the points indicated in paragraph 8, which record must be forwarded promptly, at the close of each month, to the Contract office, in an envelope superscribed with the words "Through Mails."

13. Postmasters, special agents, railway post office clerks, route agents, local agents, and others employed in the service of the Post Office Department, are enjoined to familiarize themselves with these instructions, and to use all diligence and carefulness to have them strictly and faithfully carried out.

Respectfully,

GILES A. SMITH,
Second Assistant Postmaster General.

No. 14.—*Railway post office lines in operation on the 30th of June, 1869, giving the termini and the length of each route.*

	Miles.
Atlanta, Georgia, and Chattanooga, Tennessee.....	140
Albany, New York, and Buffalo, New York.....	258
Buffalo, New York, and Toledo, Ohio.....	295
Boston, Massachusetts, and St. Albans, Vermont.....	290
Bloomington, Illinois, and Centralia, Illinois.....	136
Boston, Massachusetts, and Portland, Maine.....	111
Boston, Massachusetts, and Albany, New York.....	200
Boston, Massachusetts, and Orleans, Massachusetts.....	110
Boston, Massachusetts, and Fitchburg, Massachusetts.....	50
Boston, Massachusetts, and South Berwick, Maine.....	74
Bristol, Tennessee, and Chattanooga, Tennessee.....	242
Chicago, Illinois, and Green Bay, Wisconsin.....	242
Chicago, Illinois, and Quincy, Illinois.....	286
Chicago, Illinois, and Dunleith, Illinois.....	188
Chicago, Illinois, and Davenport, Iowa.....	184
Chicago, Illinois, and Clinton, Iowa.....	138
Chicago, Illinois, and Centralia, Illinois.....	253
Chicago, Illinois, and St. Louis, Missouri.....	280
Centralia, Illinois, and Cairo, Illinois.....	112
Columbus, Kentucky, and Cairo, Illinois.....	21
Clinton, Iowa, and Montana, Iowa.....	203
Dubuque, Iowa, and Iowa Falls, Iowa.....	143
Freeport, Illinois, and Bloomington, Illinois.....	139
La Fayette, Indiana, and Quincy, Illinois.....	273
Louisville, Kentucky, and Nashville, Tennessee.....	185
Memphis, Tennessee, and Chattanooga, Tennessee.....	310
Montana, Iowa, and Council Bluffs, Iowa.....	150
New York, New York, and Boston, Massachusetts.....	234
New York, New York, and Washington, District of Columbia.....	232
New York, New York, and Buffalo, New York.....	433
New York, New York, and Albany, New York.....	144
Philadelphia, Pennsylvania, and Pittsburg, Pennsylvania.....	358
Peoria, Illinois, and Burlington, Iowa.....	45
Quincy, Illinois, and St. Joseph, Missouri.....	206
Rochester, New York, and Niagara Falls, New York.....	77
Toledo, Ohio, and La Fayette, Indiana.....	203
Washington, District of Columbia, and Weldon, North Carolina.....	216
Total.....	7,901

No. 15.—*Statement showing operations and results of foreign mail service for the fiscal year ended June 30, 1869.*

The postages on United States and European mails were as follows :

The aggregate amount of postage (sea, inland, and foreign) on the mails exchanged with the United Kingdom.....	\$661, 112 50
With North German Union.....	521, 236 22
With France.....	243, 026 96
With Belgium.....	11, 563 04
With Netherlands.....	17, 583 59
With Switzerland.....	30, 286 20
With Italy.....	18, 964 54
Total postages.....	1, 503, 773 05

Being \$202,694 71 less than the amount reported for the previous year.

The postages on mails sent to Europe were as follows, viz :

To Great Britain.....	\$347, 617 05
To North German Union.....	257, 104 27
To France.....	133, 370 33
To Belgium.....	5, 752 05
To Netherlands.....	9, 001 19
To Switzerland.....	14, 191 90
To Italy.....	7, 333 80
Total.....	774, 370 59

The postages on mails received from Europe were as follows, viz :

From Great Britain.....	\$313, 495 45
From North German Union.....	264, 131 95
From France.....	109, 656 63
From Belgium.....	5, 810 99
From Netherlands.....	8, 582 40
From Switzerland.....	16, 094 30
From Italy.....	11, 630 74
Total.....	729, 402 46

Postages collected in the United States.....	\$939, 348 95
Postages collected in Europe.....	564, 424 10
Excess of collections in the United States.....	374, 924 85

Number of letters sent from the United States.....	6, 083, 504
Number of letters received from Europe.....	5, 345, 047
Total.....	11, 428 551

Being an increase of 1,359,892 over the number reported for the previous year.

The excess of postages on mails sent from the United States to different countries of Europe over that accruing on mails received from the same countries was as follows :

Great Britain.....	\$34, 121 60
France.....	23, 713 70
Netherlands.....	418 79
Total.....	58, 254 09

The excess of postages accruing on mails received over those sent was as follows :

North German Union.....	\$7, 027 68
Italy.....	4, 296 94
Switzerland.....	1, 902 40
Belgium.....	58 94
Total.....	13, 285 96

Number of letters and amounts of postage on mails conveyed to and from Europe by the following steamship lines:

Name of line.	Letters.	Postage.
Cunard line.....	3, 051, 559	\$422, 941 65
Bremen (North German Lloyd) line.....	2, 817, 532	355, 140 10
Inman (Dale) line.....	2, 358, 005	327, 045 43
Hamburg line.....	2, 799, 387	340, 589 92
Canadian line.....	145, 842	19, 039 24
French line.....	243, 991	38, 869 77
Baltimore line.....	611	73 83
British Steamship Company line.....	1, 685	79 86
Totals.....	11, 418, 612	1, 503, 773 05

Number of letters and newspapers, and amounts of postage on mails conveyed by United States steamships to and from the West Indies, Panama, Mexico, Brazil, Central and South America, Japan and China, &c.

	Number of letters.	Number of newspapers.	Amount of postage.
West Indies.....	693, 758	214, 003	\$88, 984 34
Panama and South Pacific.....	240, 812	112, 850	43, 344 15
Brazil.....	159, 986	95, 589	19, 391 75
Mexico.....	40, 486	37, 936	5, 118 12
China and Japan.....	16, 570	12, 190	1, 900 80
Sandwich Islands.....	7, 964	1, 447	825 34
Belize (Honduras).....	8, 447		844 70
Cape Town.....	10		1 00
Totals.....	1, 168, 033	474, 015	160, 410 10

No. 16.—Convention between the general post office of the United Kingdom of Great Britain and Ireland and the general post office of the United States of America.

The general post office of the United Kingdom of Great Britain and Ireland and the general post office of the United States of America, being desirous of establishing and maintaining an exchange of mails between the United States on the one side, and the colony of British Honduras on the other, by means of the British mail packet plying between New Orleans and Belize, the undersigned, duly authorized for that purpose, have agreed upon the following articles:

ARTICLE 1. There shall be a direct exchange of mails between the office of New Orleans on the one part, and the office of Belize on the other, comprising letters, newspapers, book-packets, and packets of patterns or samples, originating in the United States and addressed to British Honduras, or originating in British Honduras and addressed to the United States. These mails shall be conveyed by the British mail packets established between New Orleans and Belize, so long as the British government shall deem it expedient to maintain such packets.

ARTICLE 2. The postage to be collected in British Honduras upon paid correspondence addressed to the United States shall be six pence per single letter not exceeding half an ounce in weight, heavier letters being charged in proportion; one penny for each newspaper, and three pence per four ounces for book-packets, or packets of patterns or samples; and the postage to be collected in the United States upon paid correspondence addressed to British Honduras shall be twelve cents per single letter not exceeding half an ounce in weight, heavier letters being charged in proportion; two cents on each newspaper, and six cents per four ounces on book-packets or packets of patterns or samples. The postage in either direction must in all cases be wholly prepaid. The correspondence thus paid shall be delivered at the place of destination, whether in the United States or in British Honduras, free from all charge whatsoever.

ARTICLE 3. The exchange of the correspondence referred to in article 2 preceding shall not give rise to any accounts between the British and the United States post offices. Each office shall keep the postage which it collects.

ARTICLE 4. Every letter, newspaper, book-packet, or packet of patterns or samples, dispatched from one office to another, shall be plainly stamped, in red ink, with a stamp bearing the word "paid" on the right-hand corner of the address, and shall also bear the dated stamp of the office at which it was posted.

ARTICLE 5. Dead letters, newspapers, &c., which cannot be delivered, from whatever cause, shall be mutually returned, without charge, monthly, or as frequently as the regulations of the respective offices will permit.

ARTICLE 6. The two offices may, by mutual consent, make such detailed regulations as shall be found necessary to carry out the objects of this agreement; such regulations to terminate at any time, on a reasonable notice by either office.

ARTICLE 7. This convention shall come into operation on the 1st day of October, 1869, and shall be terminable at any time on a notice by either office of six months.

Done in duplicate, and signed in Washington on the eleventh day of August, 1869, and in London on the fourth day of September, 1869.

JNO. A. J. CRESWELL, [L. S.]
Postmaster General.

HARTINGTON, [L. S.]
Postmaster General of the United Kingdom.

I hereby approve the foregoing convention, and in testimony thereof I have caused the seal of the United States to be affixed.

U. S. GRANT.

By the President:

HAMILTON FISH, [L. S.]
Secretary of State.

WASHINGTON, August 11, 1869.

No. 17.—*Additional article to the regulation of detail and order signed at Paris, November 28, 1867, and concerning the exchange of correspondence between Switzerland and the United States of America.*

In accordance with article 18 of the postal convention concluded at Berne, between Switzerland and the United States, dated October 11, 1867, the two administrations have agreed to replace article 17 of the detailed regulations of November 28, 1867, relative to same convention, by the following arrangements:

SOLE ARTICLE. It is agreed, that the accounts between the two offices shall be respectively established upon the letter-bills in the money of the dispatching office, excepting, however, the international rates on unpaid or insufficiently paid letters, which must be calculated in the money of the country where such letters are delivered.

As far as concerns the international rates, the reduction of the money shall take place in the general accounts, on the basis of five francs fifteen centimes for one dollar of the United States.

In marking the foreign postages upon the letter-bills in the money of the dispatching office, the cent of the United States shall be considered as the equivalent of five centimes of Switzerland.

It is also understood that the quarterly accounts shall be liquidated, respectively, in gold, of the denomination of the creditor office.

Signed at Berne the 6th March, and at Washington the 26th of March, 1869.

JNO. A. J. CRESWELL, [L. S.]
Postmaster General.

DOBBS, [L. S.]
Director General of Posts.

No. 18.—*Amended article to replace article 16 of the detailed regulations for the execution of the postal convention signed at Florence the 8th day of November, 1867.*

In accordance with article 18 of the postal convention between Italy and the United States, signed at Florence on the 8th of November, 1867, the two administrations have agreed to replace article 16 of the detailed regulations of 19th March and 2d May, 1868, by the following article:

ARTICLE 16. It is understood that the accounts between the two offices shall be established in the respective letter-bills in the proper money of the dispatching office, but the international postages on the unpaid letters, or insufficiently prepaid letters, shall be computed in the money of the receiving office. The reduction of these moneys shall be effected in the general accounts at the rate of five lire ten centesimi of Italy for one dollar of the United States. In entering the foreign charges on the letter-bill in the money of the dispatching office, the cent of the United States and five centesimi of Italy shall be taken as equivalent. It is also understood that the quarterly accounts

shall be paid, respectively, in gold, and in the denomination of the money of the creditor office.

Signed at Washington the 1st day of May, and at Florence the 25th day of May, 1869.

JNO. A. J. CRESWELL, [SEAL.]

Postmaster General.

G. BARBAVARA, [SEAL.]

Director General of Posts.

No. 19.—Total operations of the appointment office for the year ended June 30, 1869.

States, &c.	Post offices.				Postmasters.			Total number of cases.
	Established.	Discontinued.	Name and sites changed.	Appointments on change of name and sites.	Resigned.	Removed.	Deceased.	
Alabama.....	83	70	4	1	57	38	4	256
Alaska.....	1				1			2
Arizona.....	3	4			2	2		11
Arkansas.....	67	62	11	6	75	27	3	245
California.....	44	19	15	7	47	39	5	169
Colorado.....	18	4	8	3	4	7	1	42
Connecticut.....	10	6	5	2	81	71	3	176
Dakota.....	5	1	3	1	13	6	1	29
Delaware.....	2	1	3	1	5	10	2	23
District of Columbia.....			1			1		2
Florida.....	25	27			20	15	1	88
Georgia.....	45	47	5	2	58	32	2	189
Idaho.....	3	5	6	3	5	5		24
Illinois.....	59	35	26	10	265	200	12	597
Indiana.....	48	33	23	9	252	90	11	457
Indian Territory.....								
Iowa.....	61	36	17	6	233	98	6	441
Kansas.....	70	18	17	8	86	34	6	231
Kentucky.....	51	44	11	5	147	57	10	330
Louisiana.....	29	16	1		34	28	3	111
Maine.....	16	10			74	34	6	140
Maryland.....	14	4	14	6	57	76	7	179
Massachusetts.....	8	3	4	1	59	38	10	122
Michigan.....	68	28	15	7	128	75	4	318
Minnesota.....	40	9	10	4	67	65	2	193
Mississippi.....	45	36	2		49	37	5	174
Missouri.....	102	61	17	7	226	132	10	548
Montana.....	22	5	3		15	6		51
Nebraska.....	38	17	12	5	55	11	2	135
Nevada.....	15	8	4	1	9	7	1	44
New Hampshire.....	8	2	3	1	58	39	7	117
New Jersey.....	16	4	12	5	53	44	6	135
New Mexico.....	2	5			6	4		17
New York.....	38	26	14	6	286	450	27	851
North Carolina.....	80	43	3		104	45	4	279
Ohio.....	55	23	15	6	362	223	7	635
Oregon.....	24	9	6	2	18	5	1	63
Pennsylvania.....	92	24	37	23	379	351	23	906
Rhode Island.....		2	5	2	5		1	13
South Carolina.....	42	22			33	31	2	130
Tennessee.....	58	32	26	14	117	62	11	306
Texas.....	71	71	12	4	62	25	4	263
Utah.....	9	2	9	3	7	1		28
Vermont.....	3	1	2		49	11	5	71
Virginia.....	70	81	7	2	84	33	7	229
Washington.....	8	8	4	1	13	4	2	39
West Virginia.....	25	42	2		84	30	4	187
Wisconsin.....	42	17	6	2	112	92	2	271
Wyoming.....	18	5			8			31
Total.....	1,653	1,028	400	166	3,994	2,691	230	9,996

No. 20.—Table showing the increase and decrease of post offices in the several States and Territories; also the number of post offices at which appointments are made by the President, and by the Postmaster General, for the year ended June 30, 1869.

States and Territories.	Whole number of post offices, June 30, 1868.	Increase.	Decrease.	By the President of the United States, June 30, 1868.	Increase.	Decrease.	By the President of the United States, June 30, 1869.	Total by the Postmaster General, June 30, 1869.	Whole number of offices in the United States, June 30, 1869.
Alabama.....	475	13		8	1		9	479	488
Alaska.....	1	1						2	2
Arizona.....	15		1					14	14
Arkansas.....	351	5		3	2		5	351	356
California.....	444	25		18	2		20	449	469
Colorado.....	75	14		3	1		4	85	89
Connecticut.....	383	4		25	5		30	367	397
Dakota.....	31	4		1		1		35	35
Delaware.....	86	1		1	1		2	85	87
District of Columbia.....	5			2			2	3	5
Florida.....	108		2	4	1		5	101	106
Georgia.....	450		2	12	1		13	435	448
Idaho.....	31			2			2	27	29
Illinois.....	1,547	24		75	19		94	1,477	1,571
Indiana.....	1,270	15		40	6		46	1,239	1,285
Indian Territory.....									
Iowa.....	1,054	25		31	10		41	1,038	1,079
Kansas.....	329	52		6	5		11	370	381
Kentucky.....	872	7		18		1	17	862	879
Louisiana.....	203	13		3	1		4	212	216
Maine.....	800	6		22	1		23	783	806
Maryland.....	475	10		9			9	476	485
Massachusetts.....	670	5		64	3		67	608	675
Michigan.....	202	40		40	9		49	193	242
Minnesota.....	574	31		10	6		16	569	605
Mississippi.....	340	9		9	3		11	338	349
Missouri.....	1,062	41		20			23	1,080	1,103
Montana.....	162	17		2			2	51	53
Nebraska.....	158	21		2			2	177	179
Nevada.....	43	7		4			4	46	50
New Hampshire.....	394	6		12	4		16	384	400
New Jersey.....	503	12		24	7		31	484	515
New Mexico.....	43		3	1			1	39	40
New York.....	2,596	12		115	14		129	2,478	2,608
North Carolina.....	691	37		7	3		10	718	728
Ohio.....	1,973	32		72	4		76	1,929	2,005
Oregon.....	129	15		3			3	141	144
Pennsylvania.....	2,639	68		85	2		87	2,620	2,707
Rhode Island.....	98		2	8			8	88	96
South Carolina.....	285	20		5	2		7	298	305
Tennessee.....	709	26		8	5		13	722	735
Texas.....	494			10	5		15	479	494
Utah.....	97	7		1			1	103	104
Vermont.....	447	2		14	1		15	434	449
Virginia.....	859		11	15			15	933	948
Washington.....	66							66	66
West Virginia.....	566		17	5			5	544	549
Wisconsin.....	991	25		30	6		36	960	1,016
Wyoming.....	1	13			1		1	13	14
Total.....	26,461	665	40	849	133	2	980	26,126	27,106

No. 21.—Convention for the further amelioration of the postal intercourse between the United States of America and the Swiss Confederation, by means of international money-orders issued by their respective postal administrations.

The Post Department of the United States of America, by its special commissioner, John A. Kasson, esq., and the federal council of the Swiss Confederation, by Dr. Jacques Duba, vice president of the federal council and chief of the federal post department, and Jacques Jean Challet-Venel, member of the federal council and chief of the federal department of treasury, have agreed upon the following articles, subject to ratification by the respective authorities of the two countries.

ARTICLE 1. Any person resident in either country, and desiring to transmit small sums of money to any resident in the other country, may effect the same by means of international postal money-orders, in the manner hereinafter set forth.

ARTICLE 2. There shall be designated in each country at least one office as the international money-order office. This office shall be (a) on the part of the United States, New York, (b) on the part of the Swiss Confederation, Bâle. If it shall be found necessary, additional international offices may be established by common agreement for the same object.

ARTICLE 3. Any person desiring to make such international remittance of money may purchase, at any money-order office of the country of his residence, a postal order for the requisite amount, not exceeding fifty dollars (gold value) in the United States, or its equivalent in Switzerland. This order shall be drawn on the international office of the same country. It shall contain the name and address of the beneficiary in the country of destination, and shall be in the form to be prescribed by the post department of the country of origin. The postmaster issuing the order shall immediately transmit the original to the postmaster of the international office on which it is drawn.

ARTICLE 4. At stated periods, and according to a form to be agreed upon between the two post departments, in their common regulations for the execution of this convention, the postmaster of each international money-order office shall transmit to the corresponding international office a duly certified list of such international orders received by him since the last previous transmission, to be paid in the other country. Immediately upon the receipt thereof, the postmaster of the international receiving office shall transmit, according to the usage of the receiving administration, a domestic money-order for the amount due to the beneficiary.

ARTICLE 5. In order to simplify accounts and to conform the exchange of international money-orders to the usage of each administration, and to the convenience of the people of each country, it is further agreed that the charges for such exchange of orders shall be composed of—

First. The domestic charge of the dispatching office, which shall not exceed its usual charge upon domestic money-orders of the same amount.

Second. The charge for international exchange, which shall be also fixed by the dispatching administration, subject to a minimum of twenty cents in the United States, and of one franc in Switzerland, and to a maximum of one per cent. where such rate exceeds the minimum.

Third. The domestic charge of the receiving country upon the order by means of which the sum is paid to the beneficiary, which shall not exceed its usual charge upon domestic money-orders of the same amount.

The first two charges shall always be prepaid in the country of origin, either at the time of the purchase of the order, or by deduction at the international dispatching office, as the dispatching administration may by regulation prescribe. The third charge shall always be collected in the country of destination, by deduction at the international receiving office, or in such other mode as the receiving administration shall prescribe. The dispatching administration shall retain the first and second charges, and the receiving administration shall retain the third charge. Each administration reserves the right to establish a rate for the international charge, mentioned in the second clause of this article, in excess of the maximum there fixed, whenever the cost of international exchange shall temporarily render it necessary. Each administration shall communicate to the other its tariff of charges which shall be established under this convention.

ARTICLE 6. The debtor administration shall also, at its own cost, immediately after the verification of the semi-annual accounts, pay to the creditor administration, in London or in Paris, the balance found due on the exchanges of the last preceding half year, without any deduction. All correspondence exchanged between the respective administrations in the execution of this convention shall be at the charge of the dispatching office. If, pending the settlement of an account, it shall be ascertained that the balance due from one administration to the other shall exceed the sum of two thousand dollars, the debtor administration shall promptly place a proximate amount to the credit of the other.

ARTICLE 7. The provisions of this convention relating to money are established on the basis of gold. If, for the internal convenience of either country, any other currency shall be paid to the beneficiary of the money-order, it is, in all cases, to be made as nearly as practicable the equivalent of gold, according to the relative values existing at the time. If the sender is allowed to pay for his order in any other currency than gold, the amount certified by the international office is in all cases to be the equivalent in gold. The equivalents are to be ascertained under regulations of the department employing such currency. The limitation of the charges in article 5 expressed is also based upon gold value, and, if other currency is accepted, the limitation is extended to reach its equivalent in such other currency.

ARTICLE 8. Any sums certified as in article 4 provided, which, after a reasonable delay, cannot for any cause be paid to the beneficiary, shall be re-certified to the dis-

patching administration for the benefit of the sender, to be repaid in the manner conformable to the interior regulations of the country of origin. But the administration re-certifying the same reserves the right to first deduct its domestic charge of the same amount as if the remittance had been actually paid to the beneficiary.

ARTICLE 9. Each international office shall certify its orders to the other in amounts designated in the denominations of the money of the dispatching country. These denominations shall be converted at the international receiving office at the rate which shall be fixed by common accord of the two administrations.

ARTICLE 10. The two post departments shall, by common accord, establish the detailed regulations for carrying this convention into execution, and may modify them from time to time as the exigencies of the service may require.

ARTICLE 11. This convention shall take effect at a time to be fixed by common accord of the two administrations. It shall then continue in force until terminated by mutual agreement or otherwise, until one year from notice given by one department to the other of its desire to terminate it.

Executed in duplicate at Berne this 12th day of October, A. D. 1867.

JOHN A. KASSON, *Special Com'r, &c.*

DR. J. DUBS.

J. CHALLET-VENEL.

POST OFFICE DEPARTMENT,
United States of America, Washington, D. C.

Having examined and considered the foregoing articles of a convention for the further amelioration of the postal intercourse between the United States of America and the Swiss Confederation, by means of international money-orders issued by their respective postal administrations, which articles were agreed upon and executed in duplicate at Berne on the 12th day of October, A. D. 1867, by the Hon. John A. Kasson, special commissioner, &c., &c., on behalf of this department, and by Dr. Jacques DubS, vice-president of the federal council and chief of the federal post department, and Jacques Jean Challet-Venel, member of the federal council and chief of the federal department of the treasury, on behalf of the federal council of the Swiss confederation, the same are by me hereby ratified and approved, by and with the advice and consent of the President of the United States.

In testimony whereof, I have caused the seal of the Post Office Department to be hereto affixed, with my signature, this second day of July, A. D. one thousand eight hundred and sixty-nine.

[SEAL.]

JNO. A. J. CRESWELL,
Postmaster General.

I hereby approve the foregoing convention, and in testimony thereof I have caused the seal of the United States to be hereto affixed.

[SEAL.]

U. S. GRANT.

By the President:

J. C. BANCROFT DAVIS,
Acting Secretary of State.

WASHINGTON, July 2, 1869.

No. 22.—Detailed regulations agreed upon between the Post Office Department of the United States of America and the postal administration of Switzerland for the execution of the convention concluded at Berne, October 12, 1867, for the exchange of postal money-orders.

In accordance with articles 10 and 11 of the convention for the exchange of postal money-orders concluded October 12, 1867, at Berne, between the authorized agent of the Post Office Department of the United States of America and the delegates of the Swiss federal council, the postal administrations of the two countries, for the purpose of putting that convention into execution, have agreed upon the following stipulations, which are to replace and annul the regulations arranged at Paris November 30, 1867.

ARTICLE 1. Article 3 of the convention of October 12, 1867, shall be carried into effect with this understanding, that no money-order which is remitted from the United States to Switzerland shall exceed the sum of fifty dollars in United States notes, and that no money-order which is remitted from Switzerland for payment in the United States shall exceed the sum of two hundred and fifty-seven francs and fifty centimes, or fifty dollars in gold coin.

ARTICLE 2. Article 6 of the convention of October 12, 1867, shall be executed as follows, to wit: Whenever either administration has a payment to make to the other,

whether of a balance or on account, such payment shall always be effected by means of a bill of exchange on Paris.

ARTICLE 3. The list for which article 4 of the convention of October 12, 1867, provides, by means of which the exchange office of Bâle communicates to the exchange office of New York the amounts deposited in Switzerland to be paid in the United States, shall follow the model A hereto annexed. The list by means of which, in accordance with the above-mentioned article 4, the exchange office of New York communicates to that of Bâle the amounts deposited in the United States to be paid in Switzerland, shall follow the model B hereto annexed. Every money-order shall be entered on these lists with a consecutive number, commencing with number 1 at the beginning of the calendar year. Each of the two exchange offices shall forward a list to the other regularly once a week, and by the last mail of the week; but whenever it appears necessary, two lists may be transmitted during the same week. The lists shall be sent in duplicate, and shall bear consecutive numbers, commencing with each year. It is understood that both copies are to be numbered alike. Should it happen that at the departure of the last mail of the week there are no deposits to be communicated, (for payment,) the weekly list must nevertheless be sent in that mail. But in such a case the exchange office will write across the lists the words, "No business."

ARTICLE 4. The receiving office will verify the lists received, and if errors are found will indicate them with red ink. It will also insert the items which are to be entered by the receiving office, place its mark of acceptance on the back of one of the duplicates, describe thereon in detail the errors, should any be discovered, and then return such duplicate to the dispatching office.

ARTICLE 5. The fees for the exchange of orders to be fixed by the two postal administrations, in accordance with article 5 of the convention of October 12, 1867, are for the present arranged as follows, to wit:

1. The Swiss postal administration is to receive for every money-order remitted to the United States:

a. The domestic rate, viz:

For every money-order not exceeding the sum of 100 francs.....	20 centimes.
For every money-order exceeding 100 francs, but not more than 200 francs.....	30 centimes.
For every order exceeding 200 francs.....	40 centimes.

b. The international rate, viz:

For every money-order not exceeding the sum of 100 francs.....	1 franc.
For every order exceeding 100 francs, but not more than 200 francs.....	2 francs.
For every order exceeding 200 francs.....	3 francs.

2. For every money-order arriving from the United States, the rates previously stated under No. 1, letter a.

The postal administration of the United States will receive:

3. For every money-order remitted to Switzerland:

a. The domestic rate, viz:

For every money-order not exceeding \$20.....	10 cents, U. S. currency.
For every money-order exceeding \$20, but not more than \$30.....	15 cents, U. S. currency.
For every money-order exceeding \$30, but not more than \$40.....	20 cents, U. S. currency.
For every money-order exceeding \$40.....	25 cents, U. S. currency.

b. The international rate, viz:

For every money-order not exceeding \$20.....	20 cents, U. S. gold.
For every money-order exceeding \$20, but not more than \$30.....	30 cents, U. S. gold.
For every money-order exceeding \$30, but not more than \$40.....	40 cents, U. S. gold.
For every money-order exceeding \$40.....	50 cents, U. S. gold.

4. For every money-order received from Switzerland, the rates in gold previously stated under No. 3, letter a.

In case either of the two postal administrations has reason to modify these rates within the limits of the stipulations of article 5 of the convention above mentioned, the other postal administration must be informed thereof in due season to enable it to notify its post offices of the change before the same takes effect.

ARTICLE 6. The Swiss postal administration will make out three copies of the half-yearly accounts prescribed by article 6 of the convention of October 12, 1867, and will forward them to the postal administration of the United States.

For this account a blank will be used in exact conformity with the model C hereto annexed.

ARTICLE 7. When the half-yearly account mentioned in the foregoing article 6 shows a balance in favor of the United States postal administration, the Swiss postal administration will transmit with the account the amount of such balance in the mode provided

by article 2 of these regulations. In that case the postal administration of the United States will return one copy of the half-yearly account, after having indorsed upon it an agreement to the balance, and a receipt for the amount thereof. If, on the other hand, the above-mentioned half-yearly account shows a balance in favor of the Swiss postal administration, that of the United States will return two copies of the half-yearly account, bearing the acknowledgment of its acceptance of the balance, and accompanied by a bill of exchange for the amount thereof. The Swiss postal administration will then return one copy, duly receipted, to the postal administration of the United States. Differences which may possibly arise in any half-yearly account will be carried over to the next half-yearly account.

ARTICLE 8. In making payments on account, in pursuance of the provisions of article 6 of the convention, and in the manner presented by article 2 of these regulations, the Swiss postal administration will make use of a blank corresponding to the form D, and the postal administration of the United States will use one like the model E. Both of these forms are hereto annexed.

ARTICLE 9. The amounts of the money-orders which cannot, for any reason, be paid to the beneficiaries, and which are, therefore, in accordance with the terms of article 8 of the convention of October 12, 1867, to be repaid to the postal administration of the country which remitted them, shall, for that purpose, be included in the half-yearly account. The Swiss postal administration will, therefore, in conformity with the regulations governing its domestic money-order system, place in the above-mentioned accounts, to the credit of the postal administration of the United States, all money orders received from the United States, which cannot be paid in Switzerland, whether repayment of the same has been demanded by the postal administration of the United States or not. On the other hand, only those money-orders in regard to which notice has been received from the postal administration of the United States that payment of the same could not be made, and that, therefore, they may be repaid, will be admitted into these accounts to the credit of the Swiss postal administration. It is the province of each postal administration to determine the manner in which repayment to the remitter is to be made.

ARTICLE 10. In the execution of article 9 of the postal convention of October 12, 1867, it is agreed that the gold dollar shall always be computed as equivalent in value to 5.15 francs. The final balance of the semi-annual accounts shall always be stated in the denominations of the money of that country in favor of which the balance proves to be.

ARTICLE 11. Both postal administrations mutually agree to receive reclamations respecting international money-orders, and to give them effect, in accordance with existing regulations in each country.

ARTICLE 12. Both postal administrations agree to carry into effect the convention of October 12, 1867, and the present regulations, on and after September 1, 1869, and in consequence to transmit reciprocally the first list from each exchange office by the last mail of the first week of September.

Signed at Washington this second day of July, 1869.

JNO. A. J. CRESWELL,
Postmaster General.

Signé à Berne, le 26 Juillet, 1869, le Chef du département des postes de la Confédération Suisse.

DUBS.

No. 23.—*Instructions to postmasters relative to the system of postal money-orders between the United States and Switzerland, which, by mutual agreement, is to go into operation September 1, 1869.*

1. The exchange of postal orders between the two countries is to be effected through the agency of two post offices, termed "international exchange offices." The international exchange office on the part of the United States is New York, and that on the part of Switzerland is Bâle.

2. Certain money-order post offices in this country, designated for the purpose by the Postmaster General, are authorized to issue money-orders on the postmaster at New York, payable to beneficiaries in Switzerland, and to pay orders issued by that postmaster for sums remitted by the post department of Switzerland for payment to beneficiaries in the United States. Hence, an international money-order cannot be drawn by a postmaster in either country directly upon a postmaster in the other, but must be drawn upon the international exchange office of the country in which the order is issued. An international postal order must not be drawn for a larger sum than fifty dollars in United States currency, and must not contain a fractional part of a cent. The fees for the issue of international postal orders are the same as for domestic money-orders, viz: On orders not exceeding \$20, ten cents; over \$20, and not exceeding \$30,

fifteen cents; over \$30, and not exceeding \$40, twenty cents; over \$40, and not exceeding \$50, twenty-five cents. No other currency than United States or national bank notes can be received or paid.

3. The issuing postmaster must not undertake to decide definitively upon the actual value in United States gold coin of a certain sum in currency for which an international order is issued. He is at liberty, however, to advise the remitter as to its approximate value, which may be found to differ materially from the real value, as the latter is to be computed upon the basis of the premium upon gold on the day of the receipt of the order by the postmaster at New York. Hence, this department cannot undertake, on behalf of a remitter in this country, to pay a determinate sum in gold in Switzerland. As the premium on gold is variable, it is evident that an international order issued for a sum in United States currency may, when received at the exchange office of New York, yield a sum in gold greater or less than that considered at the office of issue as the equivalent of such order. For the same reason the value in United States currency of an order in gold, certified by the exchange office of Bâle to the exchange office of New York, would depend upon the premium on gold on the day of the receipt of such certified order. This department, therefore, can only agree to cause payment to be made to a beneficiary in Switzerland of the gold value, less the established fees, of any international postal order issued for an amount in United States currency, and to pay to a beneficiary in this country the currency value, less those fees, of an international order in gold from Switzerland. To guard against misapprehension, postmasters will be careful to explain this point fully to remitters and to payees.

4. A special form of application (Form No. 1^a) must be furnished to the applicant for an international postal order payable in Switzerland. On this form he must enter all the particulars of the amount, names, address, &c., and must state the *full name* and exact residence of the payee, giving the town or village, and canton. From the items contained in such application the issuing postmaster will fill up the international postal order and coupon, both of which he will, by the next out-going mail, dispatch, without separating them, to the postmaster at New York. The corresponding certificate of the same number and date he will deliver, when completed, to the remitter, as a receipt for the amount paid in by the latter. No "advice" is used in the international system, inasmuch as the order, instead of being delivered to the remitter for transmission, is forwarded directly by the issuing postmaster to the "exchange" office at New York. The particulars of the order are to be entered in the register of international orders issued, and the application must be retained on file. The general rules in regard to issuing domestic orders, contained in the book of money-order instructions, are to be observed in the issue of international postal orders, in so far as these rules are applicable.

5. When the international postal order and coupon are received by the postmaster at New York, the latter will stamp therein the date of receipt, and insert the items to be filled in by him, viz:

"Premium on gold the day of receipt at New York.

"Value of order in United States gold.

"Charge for exchange deducted.

"Amount transmitted.

"Date and number of list in which order was certified to Switzerland.

"Current number of certified order."

When the coupon has been completed by the postmaster at New York, he will return it to the issuing postmaster, who will place it on file with the corresponding application, for reference in case the remitter of the order desires information as to the value thereof in gold when received at New York, the amount transmitted, or the date of transmission. It is expected that the issuing postmaster will cheerfully and promptly comply with a request of the remitter for information as to any of these particulars.

6. In pursuance of the provisions of the convention between the United States and Switzerland for the exchange of postal orders, the postmaster at New York will deduct from the *value in United States gold* of each order issued in this country the international charge or fee for exchange, to wit:

On orders not exceeding \$20.....	20 cents, (gold value.)
Over \$20, and not exceeding \$30.....	30 do do
Over \$30, and not exceeding \$40.....	40 do do
Over \$40, and not exceeding \$50.....	50 do do

The Post Office Department of the United States receives, therefore, for every international postal order, for a sum payable in Switzerland, *two fees*, viz: the domestic charge for the issue of the order, and the international charge for exchange. The postmaster at New York, after having deducted the charge for exchange, enters the particulars of each international order issued in this country received by him during the week in a blank form, called a list of "international postal orders," which list he transmits by the last mail of each week to the exchange office at Bâle, together with his certificate that the several amounts of these orders have been duly received in the United States for payment in Switzerland to the persons named in the list. The postmaster at New

York, therefore, retains on file all international orders drawn on him by postmasters in the United States, but forwards to Switzerland a list of such orders, giving a detailed description thereof. The postmaster at Bâle, in like manner, transmits at stated periods to the postmaster at the exchange office of New York a similar list of international orders for sums received in Switzerland for payment to beneficiaries in the United States. Hence *international orders are not actually sent by mail* from one country to the other, but lists of such orders are forwarded once a week, or oftener if necessary, by the exchange office of each country to the exchange office of the other. The receiving exchange office immediately issues an order in favor of each beneficiary for an amount equivalent to that named in the certified list, which order is payable by the money-order office nearest his place of residence, and is transmitted to the postmaster at such office. It is provided that each international exchange office shall certify its orders to the other, in amounts stated in the denominations of the money of the dispatching country, and that these denominations shall be converted at the international receiving office at the rate fixed by common consent of the two postal administrations. They have mutually agreed that, in the transaction of the international money-order business, the gold dollar of the United States shall be considered as equivalent in value to 5 francs and 15 centimes.

7. The Swiss postal administration receives for all international orders certified for payment in the lists from the United States the same rates of charge as for its domestic money-orders, to wit: For every money-order not exceeding the sum of 100 francs, 20 centimes; for every money-order exceeding 100 francs, but not more than 200 francs, 30 centimes; for every order exceeding 200 francs, 40 centimes. These rates of charge are deducted at the receiving international office of Bâle, as a compensation to the Swiss postal administration for the payment of the order. For the issue of every money-order remitted to the United States the Swiss postal administration is to receive, in addition to the same rate of fees as for its domestic money-orders, the following international rates, which are to be deducted at the exchange office at Bâle, viz: For every money-order not exceeding the sum of 100 francs, 1 franc; for every order exceeding 100 francs, but not more than 200, 2 francs; for every order exceeding 200 francs, 3 francs. From each international order certified in the lists from Switzerland for payment, the postmaster at New York will deduct the same rate of fees as are charged for domestic orders, and will issue an order for the residue in United States currency, payable to the beneficiary.

8. Upon the receipt of an international order, issued by the postmaster at New York upon the postmaster of a money-order office in this country, the latter will enter the particulars thereof in his register of international orders received. He will then send a notification (Form No. 2^a) to the payee to apply for payment of the order in person, or by his duly authorized agent, who must file with the paying postmaster his written authority from the payee to receive payment of the order, and execute a receipt therefor, and must also prove his identity if required to do so. Such written authority, when given by a payee who does not reside within the delivery of the office of payment, should be executed in the presence of the postmaster of his locality, and should bear a certificate from the latter to that effect. The date of payment must immediately be stamped upon the international order, and likewise entered opposite the record thereof in the register, and the paid order must be forwarded to the department as a voucher with the weekly statement of international money-order business. International money-orders which remain unpaid for a period of six months must be returned to the postmaster at New York, who will re-certify the same for repayment in Switzerland to the remitter.

9. Whenever the remitter of an international money-order payable in Switzerland makes application to the issuing postmaster for repayment of the amount thereof, the latter should immediately communicate the fact to this department, whereupon, if the order has not already been certified by the exchange office of New York to the exchange office of Bâle for payment, the issuing postmaster will be authorized to repay the amount of such order. But if it has been so certified, this department will notify the post department of Switzerland that application has been made for its repayment, and should it not have been paid in that country, at the date of the receipt of the notification, it will be re-certified to the exchange office of New York, in due course of business for repayment. Authority will then be given the issuing postmaster to repay the same. Orders certified to the Swiss post department which for any reason cannot be paid in Switzerland will be re-certified to this department for repayment, whether the remitter has or has not made application therefor.

10. In case the postmaster who issues an international order does not receive, after a sufficient lapse of time, the corresponding coupon thereof, duly filled up and stamped by the postmaster at New York, the former should send him a letter of inquiry on the subject, with the request that, if the order had not been received at the exchange office of New York, the latter would transmit to the issuing office a certificate to that effect. Upon the receipt of such a document, the postmaster who issued the original should draw and transmit a new order, in lieu thereof, for the same amount, and should write

across its face, and across the coupon, in red ink, the words, "In lieu of international order No. —, not received by the postmaster at New York." The certificate of loss should be carefully filed, but it is not necessary to make out and deliver a second receipt to the remitter.

11. The postmaster at every office authorized to issue and to pay international orders will be allowed to retain a fixed sum, termed an "international reserve," so that he may be always ready to meet orders of that kind drawn upon him. Whenever the amount of moneys in his hands received from the issue of international orders exceeds such reserve by one hundred dollars, or more, he will transfer the excess from the "international money-order account," to the "domestic money-order account." On the other hand, whenever he is called upon to pay international orders to an amount exceeding that of the international funds in his hands, he will transfer from the domestic to the international money-order account, a sum of money equal to the amount of his reserve, and, if necessary, large enough to enable him to pay these orders. Every transfer to and from either account must be duly entered in the international weekly statement and cash book, but no entry thereof is to be made in the postage account, nor is any notification of transfer to be sent to the department.

12. The international money-order accounts must be kept separate and distinct from the domestic money-order accounts, as well as from those of postage.

The blank books to be used, which will be furnished by the department, are—

First. A register of international money-orders issued, in which must be recorded daily the particulars of all such orders issued on the postmaster at New York.

Second. A register of international money-orders received from that postmaster.

Third. An international cash book, showing the debit and credit transactions.

These books are to be kept in the same manner as those employed for the domestic money-order business.

Statements of the international business transacted each week must also be made up every Saturday evening, and transmitted to the department, in accordance with the regulations established for weekly returns of the domestic money-order business.

13. Postmasters will receive for transacting the international money-order business the same rate of compensation as for the domestic money-order business, viz: one-third of the fees received for issues, and one-fourth of one per cent. on the gross amount of orders paid. But the annual salary or compensation of a postmaster from all sources cannot, except in the case of the postmaster at New York, exceed four thousand dollars.

14. The domestic money-order regulations in regard to incidental expenses and to the transfer of funds and blanks from a late to a newly-appointed postmaster are to be followed in the transaction of the international money-order business.

15. Attention, promptitude, and accuracy on the part of postmasters are essential to the utility and success of an international money-order system.

JNO. A. J. CRESWELL,
Postmaster General.

SEPTEMBER 1, 1869.

No. 24.

REPORT OF THE AUDITOR.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT,
October 30, 1869.

SIR: I have the honor to submit herewith my annual report of the operations of the Post Office Department for the fiscal year ended June 30, 1869, as exhibited by this office:

COLLECTION OF POST OFFICE REVENUES.

The number of post offices in operation during the year was 27,106, which are thus classified under the regulations adopted for the government of the department, chapter 26, sections 275 to 279, page 50.

The following named offices, sixty-six in number, are denominated depositories, and are required by the Postmaster General to receive and retain, subject to the drafts of the department, the funds of certain adjacent offices as well as the revenues of their own.

List of offices designated as depositories, with names of postmasters.

Albany, New York.....	M. L. Filkins.	Lafayette, Ind.....	J. L. Miller.
Atlanta, Georgia.....	J. L. Dunning.	Lancaster, N. H.....	O. Nutter.
Baltimore, Md.....	A. W. Dennison.	Leavenworth, Kan.....	K. B. Johnson.
Bangor, Maine.....	Geo. Fuller.	Lexington, Ky.....	S. W. Price.
Batavia, N. Y.....	M. Taggart.	Lima, Ohio.....	C. Parmenter.
Binghamton, N. Y.....	W. Stuart.	Louisville, Ky.....	L. M. Porter.
Buffalo, N. Y.....	Thos. Blossom.	Lowell, Mass.....	J. A. Goodwin.
Chicago, Ill.....	F. A. Eastman.	Madison, Wis.....	E. W. Keyes.
Cincinnati, Ohio.....	T. H. Foulds.	Meadville, Penn.....	D. N. Derrickson.
Cleveland, Ohio.....	G. A. Benedict.	Milwaukee, Wis.....	H. A. Starr.
Columbus, Ohio.....	J. J. Wood.	Montpelier, Vt.....	J. W. Clark.
Concord, N. H.....	J. E. Larkin.	Newark, N. J.....	Wm. Ward.
Davenport, Iowa.....	Edw. Russell.	New Haven, Conn.....	N. D. Sperry.
Des Moines, Iowa.....	G. C. Tichenor.	Olean, N. Y.....	R. L. Page.
Detroit, Mich.....	F. W. Swift.	Ogdensburg, N. Y.....	R. G. Pettibone.
Dover, Del.....	J. B. Smith.	Pittsburg, Penn.....	J. H. McClelland.
Dubuque, Iowa.....	V. J. Williams.	Plattsburg, N. Y.....	H. S. Ransom.
Easton, Penn.....	J. L. Mingle.	Portland, Maine.....	W. Davis.
Evansville, Ind.....	J. W. Foster.	Portsmouth, Ohio.....	O. Wood.
Fort Wayne, Ind.....	J. J. Kamm.	Providence, R. I.....	E. S. Jackson.
Geneva, N. Y.....	S. N. Anthony.	Quincy, Ill.....	M. Figgott.
Grand Rapids, Mich.....	A. B. Turner.	Ripon, Wis.....	D. M. Kercher.
Harrisburg, Penn.....	Geo. Bergner.	Rochester, N. Y.....	J. W. Stebbins.
Hartford, Conn.....	E. W. Whitaker.	Rutland, Vt.....	M. G. Everts.
Huntsville, Ala.....	G. W. L. Johnson.	Sandusky, Ohio.....	E. B. Sadler.
Indianapolis, Ind.....	W. R. Holloway.	Scranton, Penn.....	J. S. Slocum.
Kalamazoo, Mich.....	J. A. Walter.	Springfield, Ill.....	J. L. Crane.
Keene, N. H.....	T. E. Hatch.	Springfield, Mass.....	W. Stowe.
Steubenville, Ohio.....	J. M. Reed.	Wheeling, West Va.....	C. J. Rawlings.
Syracuse, N. Y.....	G. L. Maynard.	Williamsport, Penn.....	Robt. Hawley.
Urbana, Ohio.....	D. C. Hilt.	Wooster, Ohio.....	A. L. McClure.
Utica, N. Y.....	C. H. Hopkins.	Worcester, Mass.....	Josiah Pickett.
Vincennes, Ind.....	W. N. Denny.	Zanesville, Ohio.....	J. J. Douglas.

The following depositories and assistant treasurers receive and retain, subject to the warrants of the Post Office Department, the funds of such post offices as are instructed to deposit in their hands:

Baltimore, Md.....	John L. Thomas.	Louisville, Ky.....	J. P. Luce.
Buffalo, N. Y.....	S. J. Holley.	Mobile, Ala.....	Wm. Miller.
Chicago, Ill.....	J. E. McLean.	Olympia, Wash. Terr'y.....	J. Cushman.
Cincinnati, Ohio.....	R. H. Stephenson.	Pittsburg, Penn.....	Thos. Sheel.
Santa Fé, New Mexico.....	E. W. Little.		

ASSISTANT TREASURERS.

New York, New York.
 St. Louis, Missouri.
 Boston, Massachusetts.
 New Orleans, Louisiana.

Philadelphia, Pennsylvania.
 Charleston, South Carolina.
 San Francisco, California.
 Denver, Colorado.

One hundred and thirty-eight are "draft offices," and paid during the year 14,816 drafts issued by the Postmaster General, and countersigned, entered, and sent out by the Auditor, for sums amounting in the aggregate to.....	\$2, 229, 731 99
Eleven hundred and eighty-seven are deposit offices, a portion of which during the year deposited with the Treasurer and assistant treasurers of the United States the sum of.....	10, 293, 999 33
The remaining offices deposited with the sixty-six depositories named above \$666,742 15, which is embraced in the sum of \$2,229,731 99 paid on the drafts of the department by said depositories and draft offices.	
Twenty-one thousand five hundred and two are collection offices, and paid on collection orders issued to mail contractors.....	2, 333, 898 76
Four thousand two hundred and seventy-nine are special and mail messenger offices, and derive their mail supplies by the payment of the revenues of their offices, amounting to.....	344, 160 84
Amount of deposits made by postmasters with other postmasters...	666, 742 15
Showing the amount paid into the treasury for the use and purposes of the Post Office Department by postmasters to have been.....	15, 868, 533 07

Revenue account of the Post Office Department.

The balance standing to the credit of the revenue account on the first day of July, 1868, was.....	\$646, 249 81
The receipts of the department for the fiscal year ending June 30, 1869, were	18, 344, 510 72
The amounts placed in the treasury for the service of the department for the fiscal year, being grants in aid of the revenue, under the following acts of Congress, were:	
Under the second section of the act approved March 30, 1868, for mail steamship service between San Francisco, Japan, and China.....	\$458, 333 33
Under the second section of the act approved March 30, 1868, for mail steamship service between San Francisco and the Sandwich Islands.....	75, 000 00
Under the second section of the act approved March 30, 1868, for mail steamship service between the United States and Brazil.....	150, 000 00
Under an act approved July 25, 1868, for overland mail and marine service between New York and California	497, 315 12
Under the twelfth section of the act approved March 3, 1847, for the transportation of free matter for Congress, and the other departments of the government.	200, 000 00
Under the eighth section of the act approved March 3, 1851, for the transportation of free matter for Congress, and the other departments of the government.	500, 000 00
Under the second section of the act approved March 30, 1868, for preparing and publishing post-route maps	10, 000 00
Under an act approved July 25, 1868, for deficiency in steamship service between the United States and Brazil, for the fiscal year ended June 30, 1866.....	12, 500 00
Under an act approved March 3, 1869, to meet deficiency in the revenue of the Post Office Department for the fiscal year ended June 30, 1868.....	741, 466 85

Under the third section of the act approved March 30, 1868, to supply deficiencies in the revenues of the Post Office Department for the fiscal year ending June 30, 1869.....	\$300,000 00	
Under an act approved March 3, 1869, to meet an anticipated deficiency in the revenue of the Post Office Department for the fiscal year ending June 30, 1869.....	2,262,500 00	\$5,707,115 30
Aggregate of revenue and grants.....		24,697,875 83
 The expenditures of the department for the fiscal year ending June 30, 1869, were.....	\$23,698,131 50	
Add amount of accounts closed by being charged to "bad debts account".....	20,123,93	
Add amount of accounts closed by being charged to "compromise debts account".....	732 88	
	23,718,988 31	
Deduct amount of credit balance accounts closed by "suspense" during the year.....	40,672 36	23,678,315 95
 Leaving to the credit of the revenue account on the first day of July, 1869.....		1,019,559 88

The net revenue of the department from postage, being the aggregate of the amount of the balance due the United States by postmasters on the adjustment of their quarterly accounts for the year, after retaining their compensation, and deducting the expenses of their offices, was—

For the quarter ending September 30, 1868.....	\$2,326,218 22
For the quarter ending December 31, 1868.....	2,398,001 22
For the quarter ending March 31, 1869.....	2,703,320 65
For the quarter ending June 30, 1869.....	2,668,567 08
Total net revenue from postages.....	10,096,107 17

The amount of letter postage paid in money was—

For the quarter ending September 30, 1868.....	\$99,298 67
For the quarter ending December 31, 1868.....	96,140 08
For the quarter ending March 31, 1869.....	111,001 68
For the quarter ending June 30, 1869.....	112,842 42
Total.....	419,282 85

The number of quarterly returns of postmasters received and audited during the year, and on which the sum of \$10,096,107 17 was found due the United States, was—

For the quarter ending September 30, 1868.....	\$25,241
For the quarter ending December 31, 1868.....	25,217
For the quarter ending March 31, 1869.....	25,184
For the quarter ending June 30, 1869.....	26,716
Total number.....	102,358

The total amount of stamps and stamped envelopes sold during the year was—

For the quarter ending September 30, 1868.....	\$3,546,502 18
For the quarter ending December 31, 1868.....	3,668,761 38
For the quarter ending March 31, 1869.....	3,919,770 09
For the quarter ending June 30, 1869.....	4,036,687 71
Total.....	15,171,721 36

The gross amount collected as registration fees on valuable letters was—

For the quarter ending September 30, 1868.....	\$453 60
For the quarter ending December 31, 1868.....	350 75
For the quarter ending March 31, 1869.....	40
For the quarter ending June 30, 1869.....	23 40
Total.....	<u>828 15</u>

CONTRACTORS' ACCOUNTS.

The average number of accounts of contractors and others engaged in carrying the mails, settled in each quarter of the year, was—

On regular mail routes.....	6,384
On special mail routes.....	1,500
Of route, special, and local mail agents, postal railway clerks, &c.....	1,379
Of mail messengers.....	2,177

Total number of accounts each quarter..... 11,440

Aggregate settlement of such accounts during the year..... 45,760

MAIL TRANSPORTATION ACCOUNT.

The amount charged to accrued transportation and placed to the credit of mail contractors and others, for mail transportation during the year, was—

For the regular service of mail lines.....	\$11,166,501 74
For the supply of special and mail messenger offices.....	344,160 84
For salaries of route, special, and local mail agents, postal railway clerks, baggage-masters, &c.....	916,804 62
	<u>12,427,467 20</u>

And for foreign mail transportation:

For United States and Brazil.....	\$150,000 00
For United States and Hawaiian Islands.....	75,000 00
For New York, Queenstown, and Liverpool.....	146,141 40
For New York and Havana.....	67,415 65
For New York and Southampton.....	81,839 10
For New York, Southampton, and Bremen.....	80,398 86
For New York and San Francisco, via Panama.....	7,997 74
For New York and Bermuda.....	622 02
For New York and Hayti.....	374 08
For New York and Vera Cruz.....	1,727 74
For San Francisco and Hong Kong, China, via Kanagawa, Japan.....	458,333 33
For Boston, Nova Scotia, and Prince Edward Island.....	648 68
For Boston and Newfoundland.....	144 03
For Boston and Havana.....	28 84
For Portland and Liverpool.....	5,750 03
For Philadelphia and Havana.....	1,705 21
For Baltimore and Liverpool.....	44 25
For Baltimore and Bremen.....	33 85
For New Orleans and Belize, British Honduras.....	667 73
For expenses of government mail agent at Kanagawa, Japan, from January 1, 1867, to March 31, 1869.....	3,285 45
For expenses of government mail agent at Panama.....	1,528 23
For expenses of government mail agent at Havana.....	800 00
For expenses of government mail agent at Aspinwall.....	780 00
	<u>1,085,266 22</u>
	<u>13,512,733 42</u>

The amount credited to accrued transportation and charged to contractors, for over credits, damages, &c., during the year, was.....

Of fines imposed on contractors.....	\$93,518 42
Of deductions from their pay.....	6,577 34
	<u>84,519 75</u>
	<u>184,615 51</u>

Net amount to the credit of mail contractors and others..... 13,328,117 91

The amount actually paid and credited during the year, for mail transportation, was.....	\$13,485.406 15
Of which sum there was paid for mail transportation of previous years the sum of.....	55,584 00

Statement of the collecting division, showing balances collected from late postmasters, &c.

During the year this division has had charge of accounts—

Of present postmasters.....	27,106
Of late postmasters for the fiscal year.....	8,949
Total number.....	36,055

Total amount collected of balances due from late postmasters who went out of office prior to July 1, 1868, to wit:

Collected by draft.....	\$102,254 04
Collected by suit.....	24,389 83
Credited on vouchers.....	47,570 03
Charged to "suspense" account.....	42 59
Charged to "bad debts" account.....	15,327 42
	189,583 91

Number of changes of postmasters reported by the appointment office during the year was 8,949, and the balances due the United States upon the accounts of said late postmasters amounted to.....

Of which there has been collected by draft.....	\$163,746 40	\$655,441 45
Collected by suit on accounts late in the fiscal year.....	488 29	
Credited on vouchers.....	391 13	
Charged to "suspense" account.....	235 94	
Charged to "bad debts" account.....	162 83	
	165,024 59	
Total amount remaining due.....	490,416 86	
Of which there remains in suit.....	\$24,536 82	
Amount remaining due and not in suit.....	465,880 04	
	490,416 86	

SUITS.

The amount due by late postmasters whose term of service expired between July 1, 1845, and June 30, 1868, for which suits were instituted prior to July 1, 1869, as stated in the last annual report, was.....	\$104,150 95
Add amount of 192 suits commenced during the fiscal year, for the collection of balances due on accounts prior to July 1, 1869.....	92,162 37
Add amount of suits brought for the recovery of fines, penalties, and forfeitures.....	385,000 00
	581,313 32
From which deduct amount closed by "bad debts".....	7,957 00
Amount in suit during the year.....	573,356 32
Amount collected during the year.....	58,262 11

I have the honor to be, very respectfully, &c.,

J. J. MARTIN, Auditor.

Hon. J. A. J. CRESWELL,
Postmaster General.

A.—Statement exhibiting the receipts of the Post Office Department, under their several appropriate heads, by quarters, for the fiscal year ended June 30, 1869.

Receipts.	Third quarter 1868.	Fourth quarter 1868.	First quarter 1869.	Second quarter 1869.	Total amt under each head.
Letter postage.....	\$99,298 67	\$96,140 08	\$111,001 68	\$112,842 42	\$419,282 85
Newspaper postage, &c.....	198,336 88	192,724 19	190,566 14	197,255 09	778,882 30
Registered letters.....	453 60	350 75	40	23 40	828 15
Fines.....	7 50			50 00	57 50
Emoluments.....	214,751 39	206,695 08	210,355 16	211,537 94	843,339 57
Stamps sold.....	3,546,502 18	3,668,761 38	3,919,770 09	4,036,687 71	15,171,721 36
Dead letters.....	4,277 00	2,555 00	1,986 00		8,818 00
Internal revenue from post-masters.....	15,835 27	15,894 68	15,383 53	16,415 71	63,529 19
Money order funds deposited.....	276,743 00	256,079 00	248,228 00	249,285 00	1,030,335 00
Miscellaneous.....	11,911 71	4,101 57	2,624 80	9,078 72	27,716 80
Total.....	4,368,117 20	4,443,301 73	4,699,915 80	4,833,175 99	18,344,510 72

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

B.—Statement exhibiting the expenditures of the Post Office Department, under their several appropriate heads, by quarters, for the fiscal year ended June 30, 1869.

Expenditures.	Third quarter 1868.	Fourth quarter 1868.	First quarter 1869.	Second quarter 1869.	Total am't under each head.
Compensation to postmasters ..	\$1,131,000 64	\$1,129,111 43	\$1,119,791 35	\$1,167,055 01	\$4,546,958 43
Compensation to letter-carriers ..	289,673 99	291,691 34	300,559 47	301,990 51	1,183,915 31
Ship, steamboat, and way letters ..	2,315 74	2,010 29	1,331 41	2,418 91	8,076 35
Transportation of the mails	3,218,232 70	3,617,890 44	3,327,816 55	3,321,466 46	13,485,406 15
Wrapping paper	4,612 50	7,843 50	10,750 00	6,995 00	30,201 00
Office furniture	561 42	585 90	740 57	396 70	2,284 65
Advertising	4,957 68	15,801 80	54,927 84	3,878 09	79,565 41
Mail bags	38,639 74	38,103 60	26,943 87	26,502 47	130,189 68
Blank agents and assistants ..	1,942 50	1,942 50	1,977 77	1,977 50	7,840 27
Mail locks, keys, and stamps ..	2,631 79	7,064 89	4,065 32	3,005 77	22,767 77
Mail depredations and special agents	34,601 98	37,745 50	33,186 77	28,807 53	134,341 78
Clerks for offices	557,758 80	578,145 29	565,333 42	594,115 95	2,295,353 46
Postage stamps and stamped envelopes	108,398 90	113,454 92	124,742 42	126,616 77	473,212 31
Dead letters			5 00		5 00
Miscellaneous	250,781 00	237,842 25	333,471 93	251,596 54	1,073,691 72
Miscellaneous account, British mails				52,993 19	52,993 19
Miscellaneous account, French mails	27,566 90		7,196 39	20,256 99	55,020 28
Miscellaneous account, Bremen mails			40,045 07		40,045 07
Miscellaneous account, Belgian mails				15,416 58	15,416 58
Miscellaneous account, North German Union mails			60,847 09		60,847 09
Total	5,679,675 64	6,079,233 65	6,013,732 24	5,925,489 97	23,698,131 50

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

C.—Statement of the postal receipts and expenditures of

States and Territories.	Letter postage.	Newspaper postage.	Waste paper and twine.	Registered letters.	Stamps sold.	Emoluments.	Revenue tax.
Maine.....	\$5,503 04	\$19,833 33	\$37 55	\$16 65	\$267,144 55	\$15,391 37	\$1,317 86
New Hampshire.....	2,291 62	13,486 06	56 66	3 00	174,490 76	7,152 25	737 74
Vermont.....	2,970 00	13,468 43	55 38	11 80	169,547 43	4,652 95	604 86
Massachusetts.....	32,123 74	39,813 92	281 33	14 15	1,242,201 00	70,924 47	4,473 15
Rhode Island.....	3,923 49	4,667 73	38 47	7 40	129,251 69	12,266 03	552 73
Connecticut.....	6,924 64	17,966 91	111 47	8 80	371,390 51	30,121 49	1,626 55
New York.....	110,490 45	107,162 56	587 15	98 55	3,459,363 94	129,786 16	11,198 64
New Jersey.....	11,097 06	15,557 80	63 14	8 80	301,399 68	13,587 86	1,468 30
Pennsylvania.....	37,521 66	66,048 19	873 25	79 30	1,570,599 58	55,068 16	4,778 17
Delaware.....	531 66	3,352 93	8 14	20 80	45,672 51	649 51	76 14
Maryland.....	10,476 85	11,496 84	104 10	13 60	312,347 12	8,819 00	1,178 99
Virginia.....	2,404 56	15,466 76	59 20	8 10	242,973 93	13,666 78	1,318 51
West Virginia.....	1,221 85	6,974 08	4 79	14 10	78,749 29	2,817 31	315 21
North Carolina.....	968 69	7,758 08	9 16	26 20	99,414 79	4,796 47	434 46
South Carolina.....	1,982 92	5,345 13	10 50	2 20	92,643 58	6,153 53	343 00
Georgia.....	2,618 27	12,600 07	37 25	9 55	191,247 07	18,388 06	1,008 35
Florida.....	600 98	1,715 65	.....	.....	30,740 03	2,564 00	186 19
Ohio.....	17,649 66	71,380 65	666 08	50 40	1,031,129 55	60,646 10	4,196 08
Michigan.....	15,900 00	32,773 16	313 26	95 60	465,256 78	33,246 09	2,328 79
Indiana.....	6,020 13	36,896 66	96 35	69 10	405,817 65	34,404 93	2,310 16
Illinois.....	39,141 91	63,774 56	2,157 90	53 20	1,258,412 68	73,729 31	5,030 10
Wisconsin.....	18,857 47	28,426 17	207 03	30 75	371,757 39	24,373 04	1,939 91
Iowa.....	10,229 15	29,642 22	89 49	28 40	369,250 48	27,516 84	1,879 11
Missouri.....	10,261 71	29,548 50	138 17	35 65	500,278 36	21,100 14	1,609 13
Kentucky.....	4,410 48	16,027 79	125 23	14 60	249,497 07	11,664 81	1,141 37
Tennessee.....	2,114 39	12,147 15	108 32	18 70	186,633 60	8,663 07	943 03
Alabama.....	1,810 79	7,185 89	2 60	13 40	124,161 63	12,121 28	523 26
Mississippi.....	1,289 28	5,835 75	12 75	22 20	96,979 55	8,289 69	729 25
Arkansas.....	664 90	3,226 67	1 75	7 35	44,805 13	3,534 11	157 43
Louisiana.....	9,415 21	5,502 76	1 00	3 60	167 636 07	22,102 51	417 39
Texas.....	4,319 47	10,077 53	20 10	24 55	138,948 05	13,543 75	885 62
California.....	19,648 10	26,009 55	137 82	33 30	375,894 85	36,322 05	2,861 81
Oregon.....	582 11	3,543 68	12 10	1 60	27,386 48	3,841 83	195 60
Minnesota.....	11,961 43	12,060 26	51 65	22 55	133,922 25	12,053 72	821 45
Kansas.....	1,587 96	7,551 54	5 78	6 00	97,654 95	8,045 73	658 13
Nebraska.....	1,500 19	3,213 15	3 85	3 45	52,309 26	4,585 91	272 55
Nevada.....	1,042 78	2,203 31	1 50	1 60	19,193 70	3,404 85	334 40
Colorado.....	805 10	1,854 83	23 00	20 20	21,094 48	7,825 99	381 25
Utah.....	1,134 92	2,095 84	9 90	3 60	21,065 07	1,847 60	188 24
New Mexico.....	196 84	337 71	.....	6 20	9,095 97	520 00	57 46
Washington.....	182 27	790 66	.....	9 35	7,029 67	461 39	.....
Dakota.....	333 25	456 43	.....	.....	4,309 40	203 00	.....
Arizona.....	33 40	106 19	.....	.....	2,154 42	44 69	.....
Idaho.....	160 13	554 98	.....	.....	4,931 04	1,835 25	95 00
Montana.....	495 85	622 79	.....	80 20	12,529 27	4,159 00	365 12
District of Columbia.....	5,362 05	3,009 64	573 23	.....	106,492 36	6,569 44	1,069 98
Alaska.....	26 67	8 91	.....	.....	281 14	.....	.....
Wyoming.....	168 12	182 18	4 00	20 20	16,511 59	1,103 50	116 50
Deduct miscellaneous items.....	419,756 84	779,982 79	7,061 44	871 75	15,101,997 55	834,729 26	63,516 68
Add miscellaneous items.....	473 99	1,100 49	43 60	43 60	69,723 81	8,610 31	12 51
	419,282 85	778,882 30	7,061 44	828 15	15,171,721 36	843,339 57	63,529 19

NOTE.—The following items of expenditure and revenue are not embraced in the above statement, viz:

Excess of expenditures brought down.....	\$1,175,880 08
Amount paid for foreign mails and expenses of government agents.....	1,083,266 22
Route agents, &c.....	916,804 62
Mail messengers and supply of special offices.....	344,180 84
Foreign postage collected and returned to foreign governments.....	224,322 21
Ship, steamboat, and way letters.....	8,076 35
Wrapping paper.....	30,291 00
Office furniture.....	673 92
Advertising.....	70,756 15
Mail bags.....	90,805 74
Blank agents and assistants.....	7,240 27
Mail locks, keys, and stamps.....	22,767 77
Mail depredations and special agents.....	134,341 78
Clerks for offices.....	17,797 49
Compensation to letter carriers.....	1,183,915 31

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

the United States for the fiscal year ended June 30, 1869.

Receipts.	Compensation of postmasters.	Incidental expenses of post offices.	Compensation and incidental expenses.	Transportation by States.	Expenses.	Excess of expenditures over receipts.	Excess of receipts over expenditures.
\$309,944 35	\$125,879 02	\$38,330 52	\$164,209 54	\$129,457 73	\$293,667 27		\$15,577 08
196,236 69	85,665 57	13,660 95	99,326 52	66,043 69	163,370 21		32,868 68
191,310 65	92,407 43	10,355 47	102,769 90	103,695 60	206,456 50	\$15,147 65	649,610 34
1,329,731 76	274,335 57	214,966 15	489,301 72	250,819 70	740,121 42		73,754 17
149,690 95	31,183 18	17,111 31	48,294 49	27,732 29	76,046 78		105,633 71
1,484,948 99	128,145 36	48,941 79	177,087 13	135,328 13	312,415 28		1,632,471 24
3,818,667 45	570,816 51	772,309 59	1,343,126 10	843,070 11	2,186,196 21		45,790 46
343,192 64	120,743 69	24,958 12	145,701 81	151,700 37	297,402 18		569,018 69
1,734,867 75	401,611 82	248,013 39	649,625 21	426,343 85	1,135,968 06		3,794 42
49,291 11	17,143 08	3,220 02	20,363 10	25,133 59	45,496 69		
344,436 50	62,917 34	70,254 34	133,171 68	241,333 46	374,505 14	30,068 64	
275,917 84	85,375 51	44,477 77	139,853 28	269,817 12	409,670 40	133,752 56	
90,097 23	38,167 45	15,690 95	53,858 40	76,407 12	130,265 52	40,168 29	
113,400 85	49,951 79	10,440 93	60,392 72	138,480 71	198,873 43	85,472 58	
106,480 88	32,519 76	13,072 84	45,592 60	126,144 74	171,737 34	65,256 46	
325,909 22	65,377 64	35,541 38	101,279 02	179,368 20	280,647 22	54,738 00	
35,806 85	16,130 18	3,922 75	20,052 93	148,569 34	168,642 27	132,835 42	
1,185,718 44	348,517 67	161,898 32	510,415 99	653,729 20	1,166,145 19		19,573 25
550,107 68	199,734 13	71,769 90	271,504 03	265,508 94	537,012 97		13,094 71
485,615 68	199,095 15	71,548 65	270,643 80	300,577 84	571,221 64	85,605 96	
1,442,300 26	370,786 96	210,825 82	581,672 80	543,361 42	1,125,034 22		317,266 04
445,591 76	169,790 91	43,677 75	213,668 66	237,148 88	450,817 54	5,225 78	
438,636 79	176,055 21	34,289 14	210,344 35	188,036 86	398,381 21		40,255 58
562,973 26	132,286 44	89,246 45	221,532 89	357,334 01	578,366 90	15,894 64	
282,621 35	92,333 22	41,346 84	133,680 06	194,943 89	328,623 85	45,942 60	
210,627 28	66,642 01	45,596 47	112,238 48	146,321 55	258,560 03	47,932 75	
145,678 05	43,182 51	21,753 62	64,938 13	219,535 12	284,473 25	138,595 80	
113,156 47	54,156 91	10,298 37	64,455 28	160,580 83	225,036 11	111,877 64	
52,397 33	23,227 87	6,281 56	29,509 43	231,868 70	261,378 13	308,960 80	
205,078 74	22,354 55	36,423 00	58,777 55	238,078 53	296,856 08	91,777 34	
167,899 07	60,250 59	30,918 36	81,168 95	533,768 10	614,937 05	447,037 98	
461,708 48	80,326 82	91,768 87	172,095 69	598,116 97	770,212 66	308,504 18	
35,551 42	14,851 59	5,175 53	20,027 12	128,201 38	148,228 50	112,677 08	
171,953 34	69,345 06	15,853 31	85,198 37	172,835 49	258,033 86	86,440 52	
115,511 11	46,753 95	15,278 52	62,032 47	454,419 07	520,451 54	404,940 43	
61,888 69	17,411 56	8,518 64	25,930 20	265,042 86	290,973 06	229,084 37	
26,182 54	13,041 08	7,585 61	20,627 29	223,170 64	243,797 93	217,615 39	
31,984 85	16,109 93	6,420 00	22,529 93	46,618 11	69,148 04	37,163 19	
26,345 37	8,778 45	9,203 16	17,981 61	725,896 52	743,878 13	717,532 76	
10,214 28	6,223 80	6,223 80	6,223 80	317,262 00	323,505 80	313,291 52	
8,493 34	4,462 31	697 83	5,160 14	115,586 12	120,746 26	112,852 92	
5,309 08	2,953 64	4 25	2,957 89	8,565 25	11,523 14	6,221 06	
2,338 70	2,693 00	4 00	2,627 00	142,562 00	145,189 00	142,850 30	
7,576 40	4,562 90	1,613 00	6,175 90	50,509 34	56,685 24	49,108 84	
18,172 93	10,714 58	5,318 53	16,033 11	88,254 48	104,287 59	86,114 66	
123,622 70	6,628 25	105,118 15	111,746 40		111,746 40		11,676 30
316 72	150 00		150 00		150 00		166 72
18,086 09	4,241 52	3,080 85	7,322 37		7,322 37		10,763 72
17,207,916 31	4,476,324 09	2,727,044 77	7,203,368 86	11,013,339 85	18,216,708 71	4,580,107 51	3,571,315 11
76,728 55	70,634 34		70,634 34	153,161 89	223,796 23	147,067 68	
17,284,644 86	4,546,958 43	2,727,044 77	7,274,003 20	11,166,501 74	18,440,504 94	4,727,175 19	3,571,315 11

Expenses, postage stamps, and stamped envelopes	\$473,212 31
Dead letters, "moneys refunded"	5 00
Miscellaneous payments	674,006 25
	6,440,813 91

Excess of transportation accrued	\$27,327 27
Receipts on account of dead letters	8,218 00
Receipts on account of fines	57 50
Receipts on account of miscellaneous	20,653 36
Receipts on account of money order funds deposited	1,030,335 00
Total excess of expenditures over receipts	5,353,620 78

6,440,813 91

J. J. MARTIN, Auditor.

D.—Statement of the operations of the letter carrier system for the fiscal year ended June 30, 1869.

Offices.	Mail letters delivered.	Local letters delivered.	Newspapers delivered.	Amount paid carriers, including incidental expenses.
Albany, New York	1,361,046	120,185	261,555	\$20,563 70
Allegheny, Pennsylvania	424,328	45,533	237,138	6,146 43
Baltimore, Maryland	2,685,723	313,979	630,404	52,710 62
Boston, Massachusetts	4,263,870	1,197,670	759,348	62,043 04
Brooklyn, New York	2,079,454	287,154	561,148	37,067 87
Buffalo, New York	1,769,932	197,670	673,263	26,503 61
Cambridge, Massachusetts	345,120	30,973	223,223	3,943 87
Cambridgeport, Massachusetts	245,946	11,068	83,705	3,024 85
Charlestown, Massachusetts	394,779	28,147	122,965	4,861 60
Chicago, Illinois	8,028,030	974,517	1,658,572	77,421 24
Cincinnati, Ohio	2,842,362	478,172	484,128	62,944 32
Cleveland, Ohio	1,422,406	144,720	690,946	22,359 41
Detroit, Michigan	1,626,620	207,790	568,427	19,355 36
Erie, Pennsylvania	342,999	30,536	290,769	6,010 39
Harrisburg, Pennsylvania	256,722	13,030	85,118	3,706 51
Hartford, Connecticut	486,522	29,703	182,002	7,524 27
Jersey City, New Jersey	483,985	30,948	82,305	5,000 00
Lancaster, Pennsylvania	287,998	16,584	99,981	3,970 64
Lawrence, Massachusetts	295,733	17,883	110,082	5,804 57
Louisville, Kentucky	1,561,519	138,910	360,819	19,943 56
Lowell, Massachusetts	392,997	21,499	143,252	5,838 62
Lynn, Massachusetts	326,714	16,220	131,112	4,267 19
Manchester, New Hampshire	364,724	17,587	204,542	5,100 50
Memphis, Tennessee	841,000	49,161	206,259	11,272 22
Milwaukee, Wisconsin	1,354,331	106,635	378,686	18,353 63
Nashville, Tennessee	551,707	39,080	160,999	7,320 40
Newark, New Jersey	993,270	32,311	415,080	20,777 43
New Bedford, Massachusetts	239,496	9,816	69,352	5,038 74
New Haven, Connecticut	472,592	49,708	167,101	7,141 56
New York, N. Y.	17,331,883	8,154,675	3,529,495	292,568 85
Philadelphia, Pennsylvania	9,684,515	4,132,846	3,139,602	159,828 58
Pittsburg, Pennsylvania	1,163,346	161,138	412,336	16,464 03
Portland, Maine	401,963	29,230	169,884	7,949 20
Providence, Rhode Island	599,202	96,329	180,403	10,853 15
Reading, Pennsylvania	335,203	26,234	151,972	5,914 30
Rochester, New York	1,306,612	76,717	480,756	17,219 34
Roxbury, Massachusetts, (one quarter)	75,754	5,369	23,188	1,500 00
St. Louis, Missouri	4,773,880	548,860	1,316,051	46,855 91
Salem, Massachusetts	241,949	16,265	103,829	6,813 54
Syracuse, New York	1,297,495	115,997	403,654	12,805 00
Toledo, Ohio	650,039	29,350	418,017	8,686 00
Trenton, New Jersey	194,121	13,144	74,613	2,921 30
Troy, New York	833,387	79,266	200,225	11,018 25
Utica, New York	822,613	68,361	339,046	12,026 25
Washington, D. C.	1,429,934	126,101	456,204	31,674 91
Williamsburg, New York	245,764	64,631	203,404	11,485 14
Wilmington, Delaware	476,142	43,008	168,168	5,004 29
Worcester, Massachusetts	395,193	36,607	133,870	6,020 63
Total	80,071,052	18,380,627	21,954,898	1,183,915 31

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

E.—A detailed statement, under the head of miscellaneous payments made by the Post Office Department for the fiscal year ended June 30, 1869, exhibiting the following sums placed to the credit of postmasters and others, and charged to miscellaneous account, viz :

Date.	To whom allowed.	For what object.	Amount.
1868.			
Nov. 17	J. W. McDonough.....	Postmaster, Galveston, Texas, for exchange paid for draft on New Orleans, La., for \$600 47.	\$2 78
17	W. P. de Normandie.....	Postmaster, Austin, Texas, for expenses incurred in going to and from New Orleans, La., to deposit with the assistant United States treasurer.	102 00
18	C. B. Prescott.....	Postmaster, Holyoke, Mass., for rent and fuel in 3d quarter 1868.	36 90
28	T. L. Moore.....	Late postmaster Youngstown, Ohio, for rent from July 1 to August 16, 1868.	25 54
30	E. W. Lucas.....	Postmaster, Iowa City, Iowa, for gas in 3d quarter 1868.	3 60
Dec. 9	J. A. Kansler.....	Postmaster, Jackson, Miss., for gas in 3d quarter 1868.	10 00
9	E. R. Brink.....	Postmaster, Wilmington, N. C., for stationery in 3d quarter 1868.	7 00
12	C. M. Alexander.....	Postmaster, Washington, D. C., for amount paid for mail boxes purchased December 7, 1868.	132 00
17	J. G. Palen.....	Postmaster, Hudson, N. Y., for rent in 3d quarter 1868.	7 50
18	C. B. Grant.....	Postmaster, Ann Arbor, Mich., for rent in 3d and 4th quarters 1867, and 1st and 2d quarters 1868.	50 00
28	C. B. Streeter.....	Postmaster, Youngstown, Ohio, for rent, light and fuel in 3d quarter 1868.	32 41
29	J. Hartzell.....	Postmaster, Canton, Ohio, for light and fuel in 3d quarter 1868.	9 75
31	E. R. Farman.....	Postmaster, South Bend, Ind., for rent in 2d, 3d, and 4th quarters 1865, and 1st quarter 1866.	291 00
1869.			
Jan. 18	A. W. Myers.....	Postmaster, Oil City, Pa., for rent and light in 3d quarter 1868.	55 45
21	H. L. Phillips.....	Postmaster, Decatur, Ind., for expenses incurred in closing post office at Canaper, Ind.	11 50
Feb. 4	J. M. Graham.....	Postmaster, Cairo, Ill., for rent in 3d quarter 1868.	225 00
4	J. J. N. McConnell.....	Postmaster, Gaylesville, Ala., for expenses incurred in collecting sundry drafts.	37 94
10	Henry Massie.....	Postmaster, Charlottesville, Va., for rent and fuel in 1st, 2d, and 3d quarters 1867.	233 00
16	M. McMahon.....	Postmaster, Halifax, N. C., for expenses incurred in collecting draft drawn on the postmaster of Littleton, N. C.	75
22	Moses Evans.....	Postmaster, Waukegan, Ill., for light, rent, and fuel in 3d and 4th quarters 1868.	245 83
22	J. J. Hotchstetter.....	Postmaster, Nebraska City, Neb., for rent and light in the 1st, 2d, and 3d quarters 1868.	159 35
23	W. W. Lander.....	Postmaster, Salem, Mass., for light and fuel in 3d quarter 1868.	113 00
26	J. J. Hotchstetter.....	Postmaster, Nebraska City, Neb., for fuel in 4th quarter 1868.	39 25
27	W. Heffner.....	Postmaster, Shreveport, La., for rent and water in 2d quarter 1868.	181 00
27	W. H. Pier.....	Postmaster, Scranton, Pa., for rent in 3d quarter 1868.	75 00
March 3	C. A. Harrington.....	Postmaster, Albion, N. Y., for light and fuel in 3d and 4th quarters 1868.	19 70
3	A. N. Dougherty.....	Postmaster, Newark, N. J., for light and fuel in 3d quarter 1868.	2 49
3	Chandler Ford.....	Postmaster, Battle Creek, Mich., for light and fuel in 4th quarter 1868.	14 15
April 9	B. A. Griffith.....	Late postmaster, Monmouth, Ill., for rent in 1st quarter 1867.	25 00
20	W. H. Pier.....	Postmaster, Scranton, Pa., for rent in 4th quarter 1868.	75 00
27	G. W. Twoney.....	Late postmaster, Jeffersonville, Ind., for rent in 3d quarter 1866.	113 87
May 3	Jno. A. Martin.....	Postmaster Atchison, Kansas, for rent and fuel in 3d and 4th quarters 1868.	233 00
13	J. Davis, 2d.....	Late postmaster, Albany, N. Y., for expenses incurred in recovering mail bag Feb. 19, 1869.	24 80
31	A. W. Myers.....	Late postmaster, Oil City, Pa., for rent in 4th quarter 1868.	50 00
June 2	Henry S. Gibbons.....	Late postmaster, St. John's, Mich., for amount paid under "private resolution No. 6," approved March 3, 1869, for money belonging to United States, stolen from him on the night of June 11, 1866.	470 00
	T. Good.....	Postmaster, Allentown, Pa., for rent in 3d and 4th quarters 1868.	72 50

E.—Statement of payments made by the Post Office Department, &c.—Continued.

Date.	To whom allowed.	For what object.	Amount.
1869.			
June 12	R. Quinby.....	Postmaster, Sing Sing, N. Y., for rent in 1st quarter 1869.	\$63 50
16	J. S. Pollock	Postmaster, Little Rock, Ark., for fuel in 4th quarter 1868.	20 25
16	J. C. Shea.....	Special agent and acting postmaster, Milledgeville, Ga., for rent in 4th quarter 1868, and 1st quarter 1869.	75 50
22	Jno. A. Warner.....	Postmaster, Henry, Ill., for expenses incurred in arresting mail robber.	28 40
25	A. Cotton.....	Postmaster, Belvidere, Ill., for rent in 4th quarter 1868.	100 00
July 19	C. B. Prescott.....	Postmaster, Holyoke, Mass., for rent and light in 4th quarter 1868.	35 00
19	S. S. Mathews.....	Postmaster, Pontiac, Mich., for light in 1st quarter 1869.	6 25
Aug. 16	T. L. Moore.....	Late postmaster, Youngstown, Ohio, for rent in 3d quarter 1868.	21
Sept. 6	Hannah Taylor.....	Postmaster, Corpus Christi, Texas, for amount by her for telegram ordering a supply of postage stamps in lieu of those received in a damaged condition and returned.	5 25
10	H. P. Davis.....	Postmaster, Mansfield, Ohio, for fuel and light in 3d and 4th quarters, 1868, and 1st quarter 1869.	65 80
22	P. Joslyn.....	Postmaster, East Saginaw, Mich., for rent, light, and fuel in 2d quarter 1869.	98 05
22	W. S. Bivens.....	Postmaster, Goshen, Ind., for rent in 2d quarter 1869.	3 00
23	J. T. Moak.....	Postmaster, Watertown, Wis., for light and fuel in 3d and 4th quarters 1868, and 1st and 2d quarters 1869.	70 10
23	C. W. Buck.....	Postmaster, Winona, Mich., for light and fuel in 3d and 4th quarters 1868, and 1st quarter 1869.	33 55
23	J. Gibson.....	Late postmaster, Virginia City, Montana, for light, fuel, and rent in 2d quarter 1869.	228 00
24	R. Peysart.....	Postmaster, Bethlehem, Pa., for fuel and light in 3d and 4th quarters 1868, and 1st quarter 1869.	24 96
25	C. H. Hopkins.....	Postmaster, Utica, N. Y., for amount paid by him for washing in 2d quarter 1869.	6 56
25	A. L. Hosmer.....	Postmaster, Virginia City, Montana, for light, fuel, and rent in 2d quarter 1869.	80 84

Amounts paid by the department on warrants, and charged to miscellaneous account, viz :

Date.	To whom paid.	For what object.	Amount.
1868.			
Oct. 1	George F. Nesbitt.....	For office, dead, and register-letter envelopes furnished during the 3d quarter 1868.	\$10,994 17
8	Bennett Pike.....	For services as attorney of the United States for the western district of Missouri, in five cases.	85 00
8	D. T. Corbin.....	For services as attorney of the United States for the district of South Carolina, in eleven cases.	145 00
9	E. B. Olmstead.....	Disbursing clerk of the Post Office Department, for material and incidental expenses incurred in the preparation of post-route maps.	857 68
10	George F. Nesbitt.....	For stationery furnished the Post Office Department from January 19 to August 25, 1868.	407 54
13	Riggs & Co.....	For gold draft for \$300 (premium thirty-nine per cent.) to pay for services of Morphy, Sullivan & Fenton, attorneys of the United States in a chancery suit, Toronto, C. W.	417 00
20	James Kelly.....	Postmaster, New York, N. Y., to pay money orders, under provision of section 9 of the act of May 17, 1864.	50,000 00
Nov. 4	James Kelly.....	Postmaster, New York, N. Y., to pay money orders, under provision of section 9 of the act of May 17, 1864.	50,000 00
12	National Bank Note Co....	For printing and binding draft books, furnishing stock, &c.	315 75
21	Denpsey & O'Toole.....	For hemp and small twine furnished October 4, 1868.	2 775 00
25	D. McClelland.....	For engraving, printing, and coloring post route maps.	1,445 00
Dec. 1	William Boll.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post route maps.	473 20

Amounts paid by the department on warrants, &c.—Continued.

Date.	To whom paid.	For what object.	Amount.
1868.			
Dec. 2	Robert Leachman.....	For services as attorney of the United States for the southern district of Mississippi, in five cases.	\$50 00
2	Charles P. Redmond.....	For services as clerk of the United States district court for the eastern district of Arkansas, in six cases.	42 90
3	James Kelly.....	Postmaster, New York, N. Y., to pay money orders, under provision of section 9 of the act of May 17, 1864.	40,000 00
5	Charles Van Winkle.....	For services as marshal for the United States for the district of Virginia, in fifteen cases.	2,203 33
12	Dempsey & O'Toole.....	For hemp twine furnished December 11, 1868.....	675 00
14	Henry S. Fitch.....	For services as attorney of the United States for the district of Georgia, in ten cases.	155 00
22	Dempsey & O'Toole.....	For twine furnished November 18, 1868.....	2,100 00
1869.			
Jan. 5	William Bell.....	Disbursing clerk of the Post Office Department, for incidental expenses incurred in the preparation of post-route maps, including salaries of the assistants to the topographer, for December, 1868.	652 00
5	James Kelly.....	Postmaster, New York, N. Y., to pay money orders, under provision of section 9 of the act of May 17, 1864.	60,000 00
7	George F. Nesbitt.....	For office envelopes furnished during the 4th quarter 1868.	10,913 04
7	George H. Hand.....	For services as attorney of the United States for the district of Dakota, in one case.	5 00
29	Dempsey & O'Toole.....	For twine furnished January 18, 1869.....	1,050 00
Feb. 2	William Bell.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of assistants to the topographer, for the month of January, 1869.	489 53
25	Charles P. Redmond.....	For services as attorney of the United States for the eastern district of Arkansas, in one case.	10 00
25	N. J. Riddick.....	For services as clerk of the United States circuit court, district of North Carolina, in fifteen cases.	115 45
26	Dempsey & O'Toole.....	For small and hemp twine furnished Feb. 1, 1869..	1,795 00
Mar. 1	William Bell.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of assistants to the topographer, for February, 1869.	531 38
17	Dempsey & O'Toole.....	For small and hemp twine furnished Mar. 16, 1869.	504 12
18	John W. Noble.....	For services as attorney of the United States for the eastern district of Missouri, in seven cases.	40 00
24	John W. Noble.....	For the same, in one case.....	5 00
27	James Kelly.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of act of May 17, 1864.	50,000 00
31	W. D. Dounton.....	For hemp twine furnished March 13, 1869.....	1,000 00
April 3	George F. Nesbitt.....	For office and dead-letter envelopes furnished March 31, 1869.	6,937 54
3	William Bell.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of the assistants to the topographer, for March, 1869.	468 28
6	Bennett Pike.....	For services as attorney of the United States for the western district of Missouri, in three cases.	60 00
14	J. P. Travers & Son.....	For twine furnished in March, 1869.....	3,300 00
16	Bennett Pike.....	For services as attorney of the United States for the western district of Missouri, in one case.	20 00
16	Thomas J. Hobbs.....	Disbursing clerk of the Treasury Department, for dead-letter envelopes furnished by said department.	3,609 90
27	Edward Irwin.....	For services as marshal of the United States for the district of Nevada, in four cases.	40 00
29	Charles Hibbard.....	For services as clerk of the United States court, Pamlico district of North Carolina, in five cases.	42 15
May 3	Patrick H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of the act of May 17, 1864.	50,000 00
3	George F. Nesbitt's estate	For registered-letter envelopes and packing cases..	8,960 00
11	W. D. Dounton.....	For hemp twine furnished May 6, 1869.....	1,000 00
13	F. E. Spinner.....	Treasurer of the United States, for internal revenue tax withheld from sundry persons employed in preparing post-route maps.	14 94
15	F. A. McCartney.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of assistants to topographer, for April, 1869.	531 82
20	L. L. Davis.....	For services as clerk of probate court for Harrison County, Mississippi, in copying, sealing, and stamping documentary evidence to be used in a suit.	7 00

REPORT OF THE POSTMASTER GENERAL.

Amounts paid by the department on warrants, &c.—Continued.

Date.	To whom paid.	For what object.	Amount.
1868.			
May 20	Patrick H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of the act of May 17, 1864.	\$50 000 00
22	Thomas P. Robb.....	Late postmaster, Savannah, Ga., for expenses incurred in collecting balance due United States from A. L. Harris, late special agent and acting postmaster at Savannah.	905 00
28	J. P. Travers & Son.....	For twice furnished May 26, 1869.....	6, 600 00
June 7	Patrick H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of act of May 17, 1864.	50, 000 00
11	National Bank Note Co....	For furnishing material, and printing and binding six draft books.	178 25
24	Patrick H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of act of May 17, 1864.	50, 000 00
24	Henry C. Miller.....	For services as assistant counsel of the United States in case of United States vs. W. G. Mauk, in the district court of Louisiana.	250 00
July 1	Samuel A. Riggs.....	For services as attorney of the United States for the district of Kansas, in three cases.	50 00
7	David T Corbin.....	For services as attorney of the United States for the district of South Carolina, in four cases.	80 00
8	F. A. McCartney.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of assistants to topographer, for May and June, 1869.	1,352 46
13	George F. Nesbitt's estate.	For registered-package envelopes furnished during the second quarter 1869.	11, 127 00
14	P. H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of act of May 17, 1864.	60, 000 00
17	D. McClelland.....	For engraving and printing post-route maps.....	2, 214 00
27	George F. Nesbitt's estate	For office envelopes furnished July 7, 1869.....	7, 046 35
Aug. 3	F. A. McCartney.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including salaries of assistants to topographer, for July, 1869.	575 38
4	J. P. Travers & Son.....	For cotton twine furnished in July, 1869.....	3, 300 00
9	William G. Whipple.....	For services as attorney of the United States for the southern district of Arkansas, in five cases.	40 00
9	George F. Nesbitt's estate	For office and registered-package envelopes, purchased in open market in July, 1869.	1, 131 75
17	C. P. Redmond.....	For services as clerk of the United States district court for the eastern district of Arkansas, in seven cases.	31 35
23	F. E. Spinner.....	Treasurer of the United States, for internal revenue tax withheld from sundry persons employed in preparing post-route maps.	16 71
Sept. 1	W. S. Huntington.....	Cashier First National Bank, Washington, D. C., and assignee A. T. Akerman, for services of the latter as attorney of the United States for the district of Georgia, in one case.	250 00
2	F. A. McCartney.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including the salaries of assistants to topographer, for August, 1869.	808 21
16	P. H. Jones.....	Postmaster, New York, N. Y., to pay money orders under provision of section 9 of act of May 17, 1864.	50, 000 00
27	J. P. Travers & Son.....	For five thousand pounds of cotton twine furnished in August, 1869.	1, 650 00
27	William D. Dounton.....	For five thousand pounds of hemp twine furnished in August, 1869.	1, 000 00

Amounts paid by the department on drafts, and charged to miscellaneous accounts, viz :

Date.	To whom paid.	For what object.	Amount.
1868.			
Oct. 8	William L. Dockray.....	For services as clerk of the United States circuit court for the northern district of Florida, in nine cases.	\$72 87
8	D. McClelland.....	For printing and coloring post-route maps.....	327 00
9	William Bell.....	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including the salaries of assistants to the topographer, for September, 1868.	591 65
10	Dempsey & O'Toole.....	For small twine furnished July 31, 1868.....	503 54
10	George McRae.....	For hemp twine furnished July 31, 1868.....	43 38

Amount paid by the department on drafts, &c.—Continued.

Date.	To whom paid.	For what object.	Amount.
1868.			
Oct. 29	Hon. G. W. McLellan	For expenses of Postmaster General and himself to New York on official business.	\$52 15
Nov. 9	William Bell	Disbursing clerk of the Post Office Department, for expenses incurred in the preparation of post-route maps, including the salaries of assistants to the topographer for October, 1868.	460 84
9	Matthew Hopkins	For services as clerk of the United States court for western district of Texas, in five cases.	83 45
9	E. B. Turner	For services as attorney of the United States for the district of Texas, in one case.	5 00
19	M. D. Browning	For services as attorney of the United States for southern district of Iowa, in one case.	20 00
Dec. 1	M. D. Browning	For services as attorney of the United States for district of Iowa, in one case.	20 00
4	George McRae	For hemp twine furnished in November, 1868	675 00
12	John E. Rosette	For services as attorney of the United States for the southern district of Illinois, in twelve cases.	140 00
21	Mason, Fenwick & Lawrence.	For investigation and legal opinion rendered relative to patent on letter-boxes attached to lamp posts.	300 00
1869.			
Jan. 2	A. P. Blocker	Marshal of the United States, to reimburse T. A. Harris, late paymaster at Marshall, Texas, for this amount erroneously collected from said Harris as interest on a judgment obtained in favor of the United States.	122 5
6	H. L. Moss	For services as attorney of the United States for the district of Minnesota, in one case.	20 00
15	Samuel A. Riggs	For services as attorney of the United States for the district of Kansas, in two cases.	10 00
Feb. 24	L. H. Litchfield	For services as marshal of the United States for the district of Dakota, in one case.	44 00
25	Hiram Lorance	For services as clerk of the United States circuit and district court for the western district of Texas, in three cases.	75 05
25	R. McP. Smith	For services as attorney of the United States for the middle district of Tennessee, in nine cases.	180 00
25	D. H. Starbuck	For services as attorney of the United States for the district of North Carolina, in four cases.	65 00
March 9	Daniel R. Goodloe	For services as marshal of the United States for the district of North Carolina, in eight cases.	81 64
9	Alfred Kilgore	For services as attorney of the United States for the district of Indiana, in two cases.	40 00
19	G. W. Clark	For services as marshal of the United States for the district of Iowa, in eleven cases.	48 30
24	A. P. Blocker	For services as marshal of the United States for the western district of Texas, in four cases.	42 75
April 9	A. P. Blocker	For services as marshal of the United States for the western district of Texas, in three cases.	61 35
14	E. H. Granadin	For services as attorney of the United States for the southern district of Alabama, in five cases.	100 00
14	N. J. Riddick	For services as clerk of the United States circuit court for the district of North Carolina, in five cases.	40 35
May 12	Sarah B. Corneau	Administratrix of Stephen A. Corneau, late clerk of United States district court for southern district of Illinois, for services of said Corneau as clerk, in twenty-one cases.	262 50
15	D. J. Baldwin	For services as attorney of the United States for the eastern district of Texas, in three cases.	60 00
31	R. McP. Smith	For services as attorney of the United States for the middle district of Tennessee, in two cases.	40 00
June 2	D. R. Goodloe	For services as marshal of the United States for the district of North Carolina, in two cases.	18 90
15	S. F. Beach	For services as attorney of the United States for the district of Virginia, in sixteen cases.	315 00
22	Jno. Millidge	For services as attorney of the United States for the southern district of Georgia, in one case.	5 00
July 6	R. R. Lowell	For the arrest and conviction of a mail robber at Syracuse, New York.	100 00
9	Hiram Phelps	For the arrest and conviction of a mail robber at Phelps, New York.	50 00
10	Wm. D. Downton	For hemp twine furnished July 2, 1869	1,000 00
12	A. C. Gibbs	In coin, to reimburse him for amount paid for telegram on official business.	9 25
13	A. C. Gibbs	For services as attorney of the United States for the district of Oregon, in one case.	20 00
14	Nathan Goff, jr.	For services as attorney of the United States for the district of West Virginia, in five cases.	70 00
14	A. P. Blocker	For services as marshal of the United States for the western district of Texas, in five cases.	57 85

Amount paid by the department on drafts, &c.—Continued.

Date.	To whom paid.	For what object.	Amount.
1869.			
July 14	A. Niblack	For services as clerk of the United States district court for the western district of Texas, in five cases.	\$88 65
29	D. H. Starbuck	For services as attorney of the United States for the district of North Carolina, in four cases.	65 00
Aug. 3	Blueford Wilson	For services as attorney of the United States for the southern district of Illinois, in one case.	5 00
12	Samuel Walker.....	For services as marshal of the United States for the district of West Virginia, in three cases.	9 65
21	Alfred Russell.....	For services as attorney of the United States for the eastern district of Michigan, in two cases.	25 00
Sept. 14	John Winder	For services as clerk of the United States district court for the eastern district of Michigan, in one case.	16 20
15	N. J. Riddick.....	For services as clerk of the United States circuit court for the district of North Carolina, in three cases.	33 55
15	Charles Eaton	For services as marshal of the United States for the district of Minnesota, in two cases.	39 30
16	Edward Kurtz.....	For services as clerk of the United States circuit court for the district of Wisconsin, in three cases.	18 70
16	C. E. Yost	For services as marshal of the United States for the district of Nebraska, in two cases.	8 12
21	Alfred Russell.....	For services as attorney of the United States for the eastern district of Michigan, in four cases.	150 00
21	Samuel Walker.....	For services as marshal of the United States for the district of West Virginia, in one case.	17 40
21	C. P. Redmond.....	For services as clerk of the United States circuit court for the district of Arkansas, in three cases.	16 40

Amount allowed to the postmasters at the principal offices of the United States for incidental expenses of their offices, actually and necessarily incurred, such as rent, fuel, stationery, lights, office repairs, printing, gas fixtures, &c.

Third quarter 1868.....	\$83,633 53
Fourth quarter 1868.....	108,480 00
First quarter 1869.....	98,993 65
Second quarter 1869.....	108,635 69
	<hr/> 399,751 27
Total miscellaneous payments.....	1,073,691 72

J. J. MARTIN, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

F.—Summary of principal labors.

The following brief summary indicates partially the chief labors performed by this office during the last fiscal year:

The number of accounts of late postmasters of the fiscal year requiring the final adjustment of their respective accounts.....	8,949
The number of accounts of late postmasters prior to July 1, 1868.....	35,933
The number of accounts of present postmasters.....	27,106
The number of quarterly accounts of postmasters adjusted, audited, and registered.....	102,358
The number of accounts of mail contractors audited and reported for payment.....	25,336
The number of accounts of railway postal clerks, route and local mail agents, baggage masters, &c., audited and reported for payment.....	5,518
The number of accounts of special mail carriers settled.....	6,000
The number of accounts of mail messengers settled.....	8,708
The number of accounts of special agents audited and reported for payment.....	538
The number of miscellaneous accounts audited and reported for payment.....	377
The number of accounts of United States attorneys and marshals, and of clerks of the United States courts, adjusted and reported for payment.....	64

REPORT OF THE POSTMASTER GENERAL.

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The number of accounts for advertising, audited and reported for payment.....	249
The number of suits instituted.....	192
The number of judgments obtained in favor of the United States.....	156
The number of collection orders issued to mail contractors.....	84,173
The number of collection drafts issued.....	7,230
The number of department drafts countersigned and registered.....	14,816
The number of department warrants countersigned and registered.....	5,303
The number of certificates of deposits made by postmasters with other postmasters, examined and registered.....	3,445
The number of letters received.....	175,700
The number of letters prepared, recorded, and mailed.....	119,390
The number of folio post pages of correspondence recorded in the collection book.....	2,940
The number of pages recorded in miscellaneous book.....	873
The number of pages recorded in suit book.....	890
The number of pages recorded in report book.....	171
The number of accounts on the ledgers.....	71,988
The number of corrected quarterly accounts of postmasters re-examined, copied, and mailed.....	27,853
The number of letter carriers accounts settled.....	6,712
The number of money-order accounts settled.....	87,620
The number of letters written and mailed relating to money-order affairs.....	1,540
Amount collected on drafts issued on late postmasters.....	\$163,746 40
Amount collected on orders issued in favor of mail contractors.....	2,333,898 76
Amount collected on drafts issued on mail contractors.....	23,680 11
Amount collected from mail and special messenger offices.....	344,160 84
Amount collected by suit.....	58,262 11
Amount of deposits made by postmasters with other postmasters.....	666,742 15

J. J. MARTIN, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY

FOR THE POST OFFICE DEPARTMENT, *October 29, 1869.*



8 P M G

G.—Statement showing the transactions of the money-order

State.	Number of orders issued.	Balance from last year.	Amount of orders issued.	Revenue.		Drafts and deposits received.	Balance due postmasters.	Transferred from postage fund.
				Total fees received.	Premiums.			
Alabama.....	16,437	\$4,761 69	\$391,169 84	\$2,551 65	.....	\$91,168 00	.....	\$3,897 15
Arkansas.....	13,777	6,447 48	485,055 09	2,711 90	.....	13,450 00	\$53 69	3,638 80
California.....	32,012	51,439 15	1,084,840 87	6,196 60	.....	740,174 12	17 38	3,476 00
Colorado.....	2,273	2,514 36	43,905 56	311 50	.....	.....	.....	.....
Connecticut.....	25,320	8,392 27	443,139 45	3,337 80	.....	207,829 63	61 93	15,521 00
Dakota Ter.....	429	480 24	13,003 19	76 10	.....	.....	.....	.....
Delaware.....	3,314	1,036 81	59,791 31	443 15	.....	1,975 00	16 38	4,659 64
Dis. of Columbia	14,108	1,753 12	309,525 14	2,023 25	.....	368,674 35	.....	.....
Florida.....	7,152	10,139 53	244,632 53	1,374 65	.....	.....	.....	518 00
Georgia.....	19,165	11,916 09	401,619 68	2,761 90	\$3 50	403,983 68	.....	12,692 24
Idaho Ter.....	2,328	7,890 18	91,314 49	491 30	.....	4,300 00	.....	51 00
Illinois.....	132,734	45,396 92	2,282,793 37	17,237 05	.....	1,898,366 29	147 41	40,989 73
Indiana.....	75,415	21,860 04	1,220,305 50	9,581 50	.....	337,790 12	111 56	10,294 73
Iowa.....	62,959	13,922 06	1,125,416 52	8,370 75	.....	236,476 00	7 08	26,541 93
Kansas.....	19,413	15,163 31	455,211 62	2,092 35	.....	348,133 32	198 39	4,063 52
Kentucky.....	19,528	4,290 68	332,319 13	2,514 85	.....	201,140 34	126 62	11,227 04
Louisiana.....	13,341	12,376 91	376,893 83	2,263 80	.....	304,284 16	97 77	214 00
Maine.....	19,232	19,902 69	468,081 02	2,972 90	.....	237,301 00	116 45	21,640 39
Maryland.....	16,640	14,285 04	316,877 59	2,268 95	.....	459,893 01	10 84	3,576 53
Massachusetts.....	45,927	17,778 99	963,539 25	6,540 55	.....	1,484,136 22	37 10	33,980 50
Michigan.....	64,227	25,768 00	1,086,738 24	8,281 35	1 10	523,414 95	61 08	14,334 39
Minnesota.....	25,398	10,324 68	509,040 89	3,581 40	.....	146,381 23	19 02	10,794 64
Mississippi.....	13,082	1,471 13	306,766 43	2,017 95	.....	.....	26 79	1,378 48
Missouri.....	45,307	15,066 25	880,334 56	6,219 00	.....	651,693 33	14 30	16,230 02
Montana Ter.....	1,646	2,870 02	54,868 84	316 60	.....	.....	.....	.....
Nebraska.....	6,764	1,759 98	142,584 15	903 40	.....	43,161 43	.....	1,245 00
Nevada.....	2,911	5,192 70	113,943 20	610 55	.....	.....	.....	.....
New Hampshire.....	12,577	3,843 87	248,885 50	1,744 65	.....	27,975 00	.....	13,502 15
New Jersey.....	20,159	7,145 99	385,069 93	2,746 40	.....	61,825 00	68 23	19,692 47
New York.....	117,088	91,931 94	2,097,100 25	15,997 10	.....	5,537,321 06	177 24	990,601 88
North Carolina.....	10,511	4,144 58	205,968 78	1,473 35	.....	2,506 00	.....	4,317 46
Ohio.....	119,089	33,356 79	1,042,672 08	15,275 40	12 50	1,407,441 69	31 61	44,080 74
Oregon.....	7,990	9,025 39	278,315 79	1,564 60	.....	10,851 00	87 85	4,980 84
Pennsylvania.....	95,030	30,761 77	1,690,440 40	12,585 20	.....	1,192,889 47	13 12	28,118 50
Rhode Island.....	8,415	2,154 61	154,329 00	1,116 80	.....	52,096 82	.....	2,538 01
South Carolina.....	9,063	2,089 05	204,728 38	1,351 95	39 87	114,039 00	3 30	1,319 22
Tennessee.....	28,185	9,081 03	619,892 92	4,146 75	.....	778,274 94	1 86	3,746 25
Texas.....	7,748	9,148 12	251,343 52	1,446 60	.....	.....	.....	3,386 35
Utah.....	1,759	2,363 34	47,603 92	290 05	.....	.....	.....	390 00
Vermont.....	14,354	4,644 52	242,958 40	1,849 25	.....	15,175 00	.....	19,355 00
Virginia.....	21,407	5,706 68	436,326 67	3,034 95	.....	478,849 43	.....	13,555 00
Washington Ter.....	3,116	6,963 84	125,035 40	672 15	.....	2,800 00	6 07	77 00
West Virginia.....	11,924	3,149 13	210,982 07	1,518 45	.....	10,600 00	4 45	490 00
Wisconsin.....	73,669	29,516 69	1,448,798 58	10,211 40	.....	983,663 00	430 16	5,732 58
Wyoming Ter.....	1,214	.....	38,895 76	217 80	.....	.....	.....	.....
	1,264,143	579,218 31	24,848,058 93	176,190 90	56 97	19,199,017 15	1,868 28	1,326,077 41

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1899.

office of the United States for the fiscal year ended June 30, 1869.

Number of orders paid.	Amount of orders paid.	Amount of orders repaid.	Transferred to postage fund.	Deposited.	Expenses.	Commissions and clerk-hire.	Balance due the United States.	Miscellaneous items.
4,787	\$190,763 01	\$3,557 69	\$683 60	\$291,074 00	\$9 70	\$918 72	\$6,471 61	
2,818	99,619 18	2,159 43	338 80	388,319 45	924 85	1,149 40	18,847 15	
9,039	360,744 48	8,131 85	1,057,215 00	415,110 12	121 23	5,483 98	39,267 46	
549	15,249 28	571 40		29,544 00	18 00		1,348 74	
22,407	469,799 74	3,374 65	1,500 00	194,796 63	3 35	2,012 26	6,750 43	\$45 02
97	3,168 12	84 00		9,842 50		32 94	431 97	
2,091	44,956 05	643 39		20,029 00	60	256 45	836 81	
16,125	341,721 86	1,834 78		329,395 00	159 30	2,676 71	6,188 29	
1,962	72,978 85	1,650 15		176,339 24	39 54	574 99	5,061 94	
13,066	229,498 14	3,494 20		500,631 00	104 42	1,243 73	37,765 60	
554	23,927 50	1,349 75		71,197 00	8 67	222 53	7,341 52	
131,576	2,430,324 35	20,101 97	14,461 90	1,697,508 06	155 32	10,219 62	42,156 03	3 54
36,140	707,710 60	8,625 99	2,637 85	865,505 82	154 20	4,456 89	19,538 69	303 49
34,093	765,618 60	9,607 62	1,708 17	611,244 65	85 10	4,141 50	18,319 56	9 16
11,153	307,286 60	3,226 19		490,449 05	65 50	1,462 04	22,606 45	71 88
16,716	381,204 14	3,067 04	2,047 56	158,862 00	21 21	882 21	5,513 90	
10,568	327,457 50	2,523 47	87,919 00	263,040 57	49 71	650 86	14,392 56	
15,788	427,619 60	2,232 18		297,015 00	30 50	1,461 09	11,663 08	
27,367	624,428 22	2,274 33		163,297 13	8 00	609 28	5,695 02	
142,545	2,270,967 45	8,188 72	160 31	201,835 47	423 46	6,043 06	18,345 80	48 34
36,474	764,052 10	11,488 23	52 15	854,528 45	5 85	3,789 06	24,683 27	
13,567	330,975 10	4,394 42	1,412 18	325,824 54	10 00	1,476 04	15,042 52	
2,601	62,059 25	2,000 89	77 25	242,411 23	5 00	569 10	4,438 06	
49,655	1,182,787 63	9,389 63	7,085 00	347,724 49	21 00	4,453 55	18,083 56	10 60
424	17,310 99	100 00		36,204 00		144 20	4,290 27	
2,740	71,789 95	1,540 73		106,434 00	8 00	414 37	15,556 91	
388	16,678 60	668 95		98,429 00	56 95	244 01	3,668 94	
8,938	207,905 34	1,173 44	7 05	91,212 55	20 10	1,086 09	4,546 60	
17,900	354,420 32	3,612 57	51 00	111,460 95	34 25	1,770 02	5,024 60	104 27
276,212	4,609,613 44	21,454 73	117,845 00	3,810,960 13	918 97	12,204 32	89,674 76	458 10
3,669	69,977 14	1,470 32	310 46	141,395 60	22 04	662 32	4,562 29	
118,728	2,188,697 49	16,110 62	12,128 97	1,191,030 94	123 32	8,207 88	26,491 60	19 99
3,302	139,405 05	1,601 14	7 82	155,299 75		772 00	7,727 63	11 96
111,273	1,915,634 31	15,405 74	100 00	989,070 16	117 00	7,630 32	26,821 99	
5,519	129,571 55	1,426 95		77,683 98	2 00	708 37	2,824 05	19 50
5,429	126,059 68	1,015 16		188,256 00	18 54	403 64	7,806 97	3 78
15,212	380,741 59	4,849 57	962 24	1,003,701 80	45 75	2,078 35	22,769 11	
1,700	53,291 89	1,853 98	141,990 00	57,244 79	5,531 55	436 17	4,976 21	
474	15,399 62	1,241 15	380 00	31,268 00		134 20	2,214 28	
8,124	184,990 58	1,287 10	410 00	90,941 06	1 00	1,063 36	5,289 07	
15,282	329,855 49	3,094 66	5,590 00	581,149 97	95 33	1,277 18	10,383 45	19 45
1,072	47,273 07	703 63		81,082 00		326 04	6,169 72	
3,880	85,364 43	1,192 41		133,664 00	1 00	714 11	5,709 15	
47,453	1,075,177 11	11,165 43	31 46	1,309,658 00	102 50	5,915 79	32,302 12	
106	3,308 61	186 37	3,966 00	30,719 05		80 84	852 69	
1,248,874	24,447,376 66	206,746 80	1,461,078 77	19,262,990 13	9,631 81	101,062 19	640,472 49	1,129 10

J. J. MARTIN, Auditor.

H.—Statement showing the revenue accruing to the money-order department for the fiscal year ended June 30, 1869.

Total amount of fees received.....	\$176, 190 90
Total amount received for premium on drafts.....	56 97
Total.....	176, 247 87
Commissions and clerk hire allowed postmasters.....	\$101, 062 19
Lost remittances.....	5, 797 00
Incidental expenses.....	3, 834 81
Total.....	110, 694 00
Net revenue.....	65, 553 87

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

I.—Statement showing the receipts and expenditures of the money-order department for the fiscal year ended June 30, 1869.

RECEIPTS.

Balance in hands of postmasters, June 30, 1868.....	\$579, 218 31
Amount received for money orders issued.....	24, 848, 058 93
Amount received for fees.....	176, 190 90
Amount received for premium on drafts.....	56 97
Amount received on deposit and drafts.....	19, 199, 017 15
Amount due postmasters.....	1, 868 28
Amount transferred from postage fund.....	1, 326, 077 41
Total.....	46, 130, 487 95

DISBURSEMENTS.

Amount of money orders paid.....	\$24, 447, 376 66
Amount of money orders repaid.....	206, 746 80
Amount transferred to postage fund.....	1, 461, 078 77
Amount deposited at first-class offices.....	19, 262, 990 13
Amount of incidental expenses.....	3, 834 81
Amount allowed for lost remittances.....	5, 797 00
Amount allowed for clerk hire and commissions.....	101, 062 19
Miscellaneous items.....	1, 129 10
Balance in hands of postmasters, June 30, 1869.....	640, 472 49
Total.....	46, 130, 487 95

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

J.—Amount of letter postage on British mails received in and sent from the United States during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line.....	\$9,827 61	\$23,703 66	.....	\$123,678 05	\$157,209 32
Miscellaneous line.....	6,353 50	16,195 15	.....	74,967 91	97,516 56
Hamburg line.....	354 51	1,635 29	.....	6,711 51	8,701 31
Canadian line.....	345 49	1,082 58	.....	3,719 69	5,147 76
German Lloyd.....	2,675 78	10,016 70	.....	32,152 04	44,844 61
Baltimore and Liverpool S'tship Co.....	.....	.....	.....	2 52	3 03
British Steamship Company.....	2 16	.....	.....	70 70	72 86
Totals.....	19,559 39	52,633 64	.....	241,302 42	313,495 45
Amount received.....	72,193 03	.....	\$241,302 42	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line.....	\$408 14	\$90,638 95	.....	\$6,523 18	\$97,570 27
Miscellaneous line.....	417 72	91,987 05	.....	7,898 48	100,303 25
Hamburg line.....	82 28	77,508 65	.....	6,288 67	83,879 58
Canadian line.....	.....	9,698 86	.....	546 90	10,245 06
German Lloyd.....	109 30	47,051 89	.....	8,386 90	55,548 09
Baltimore and Liverpool S'tship Co.....	.....	69 36	.....	1 44	70 80
British Steamship Company.....	.....	.....	.....	.....	.....
Totals.....	1,017 42	316,954 76	.....	29,644 87	347,617 05
Amount sent.....	317,972 18	.....	.....	29,644 87	.....

Amount collected in the United States.....\$390,165 21
 Amount collected in the United Kingdom.....270,947 29

Total.....661,112 50

Excess collected in the United States.....\$119,217 92
 Decrease, compared with last fiscal year.....197,707 96

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
 FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

K.—Amount of letter postage on North German Union mails received in and sent from the United States during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line	\$3,698 50	\$39,867 65	\$6,871 88	\$4,798 98	\$55,235 01
Miscellaneous line.....	1,903 58	30,459 43	.....	5,866 01	26,229 02
German Lloyd.....	7,374 26	47,042 51	.....	52,067 17	106,483 94
Hamburg line.....	5,442 91	24,553 85	.....	44,186 62	74,183 38
Totals.....	18,419 25	131,923 44	6,871 88	106,917 38	264,131 95
Amount received.....	150,342 69	.....	113,789 26	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line	\$70 66	\$17,152 14	.....	\$3,135 96	\$20,358 76
Miscellaneous line.....	94 74	26,273 79	.....	4,741 94	31,110 47
German Lloyd.....	315 01	77,538 44	.....	9,690 00	87,543 45
Hamburg line.....	365 98	105,090 41	.....	12,635 90	118,091 59
Totals.....	846 39	226,054 78	.....	30,203 10	257,104 27
Amount sent.....	226,901 17	.....	.....	30,203 10	.....

Amount collected in the United States..... \$377,243 86
 Amount collected in the North German Union..... 143,992 36

Total 521,236 22

Excess collected in the United States 233,251 50

OFFICE OF THE AUDITOR OF THE TREASURY
 FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

J. J. MARTIN, Auditor.

L.—Amount of letter postage collected on French mails received in and sent from the United States during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line	\$4,618 59	\$6,060 61	\$23,104 71	\$929 55	\$33,713 46
Miscellaneous line	2,857 74	5,058 01		17,599 84	25,515 59
Canadian line	• 75	15		3 15	4 05
German Lloyd	2,651 36	4,233 72		13,956 04	20,841 12
Hamburg line	1,422 80	1,976 60		7,093 86	10,493 26
French Steamship Company	2,455 69	3,468 96		13,164 50	19,089 15
Totals	14,006 93	20,798 05	23,104 71	52,746 84	109,656 63
Amount received	34,804 98		74,651 65		

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line	\$119 22	\$23,825 13		\$8,767 29	\$32,711 64
Miscellaneous line	117 75	16,343 67		7,555 06	24,016 48
Canadian line		2,758 16		883 31	3,641 47
German Lloyd	60 66	11,650 80		9,574 91	21,286 37
Hamburg line	29 94	23,042 64		8,861 17	31,933 75
French Steamship Company		14,304 89		5,475 73	19,780 62
Totals	327 57	91,925 29		41,117 47	133,370 33
Amount sent	92,252 86			41,117 47	

Amount collected in the United States	\$127,057 84
Amount collected in France	115,969 12
Total	243,026 96
Excess collected in the United States	11,088 72
Decrease, compared with the last fiscal year	42,529 31

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

M.—Amount of letter postage on Belgian mails received in and sent from the United State during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line	\$210 79	\$327 24	.....	\$3,029 52	\$3,567 35
Miscellaneous line.....	119 15	197 54	.....	1,223 27	1,539 96
Canadian line .....	.....	.....	.....	15	15
German Lloyd	134 70	196 64	.....	1,004 54	1,335 88
Hamburg line	32 16	42 90	.....	292 39	367 45
Totals.....	496 80	764 32	.....	4,549 87	5,810 99
Amount received.....	1,261 12	.....	\$4,549 87	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line	\$17 85	\$1,118 86	.....	\$327 29	\$1,464 00
Miscellaneous line.....	24 30	1,319 48	.....	419 37	1,763 15
Canadian line .....	.....	50	.....	25	75
German Lloyd .....	.....	728 32	.....	478 03	1,206 35
Hamburg line	60	1,021 00	.....	296 20	1,317 80
Totals.....	42 75	4,188 16	.....	1,521 14	5,753 05
Amount sent.....	4,230 91	.....	.....	1,521 14	.....

Amount collected in Belgium	\$6,071 01
Amount collected in the United States.....	5,492 03
Total	11,563 04
Excess collected in Belgium	572 98
Decrease, compared with the last fiscal year.....	2,116 01

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

J. J. MARTIN, Auditor.

N.—Amount of letter postage on Netherlands mails received in and sent from the United States during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line	\$279 05	\$1, 406 90	\$1, 631 35	.....	\$3, 316 60
Miscellaneous line	572 05	627 60	966 25	.....	2, 167 90
German Lloyd	906 60	1, 151 75	1, 104 10	.....	2, 464 45
Hamburg line	58 35	283 30	281 80	.....	633 45
Totals	1, 118 05	3, 478 85	3, 985 50	.....	8, 582 40
Amount received	4, 596 90	.....	3, 985 50	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line	\$1, 540 05	.....	\$530 90	\$2, 070 25
Miscellaneous line	2, 121 60	.....	667 05	2, 788 65
German Lloyd	1, 284 00	.....	474 99	1, 758 99
Hamburg line	1, 827 30	.....	556 00	2, 383 30
Totals	6, 772 95	.....	2, 228 24	9, 001 19
Amount sent	\$6, 772 95	.....	.....	2, 228 24	.....

Amount collected in the United States	\$11, 369 85
Amount collected in the Netherlands	6, 213 74
Total	17, 583 59
Excess collected in the United States	5, 156 11

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 23, 1869.

O.—Amount of letter postage on Switzerland mails received in and sent from the United States during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.	Unpaid distributed.	Paid.	Paid distributed.	Total
Cunard line.....	\$470 05	\$1,974 25	\$3,565 25	.....	\$6,009 55
Miscellaneous line.....	725 65	736 10	1,964 40	.....	3,426 15
German Lloyd.....	371 25	1,563 20	3,035 85	.....	4,970 10
Hamburg line.....	107 90	518 05	1,062 55	.....	1,688 50
Totals.....	1,674 85	4,791 60	9,627 85	.....	16,094 30
Amount received.....	6,466 45	.....	9,627 85	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total
Cunard line.....	\$2,232 90	.....	\$791 00	\$3,023 90
Miscellaneous line.....	3,021 45	.....	952 85	3,974 30
German Lloyd.....	2,085 60	.....	735 45	2,841 05
Hamburg line.....	3,246 75	.....	1,105 90	4,352 65
Totals.....	10,586 70	.....	3,605 20	14,191 90
Amount sent.....	\$10,586 70	.....	.....	3,605 20	.....

Amount collected in the United States..... \$17,053 15
 Amount collected in Switzerland..... 13,233 05

Total..... 30,286 20

Excess collected in the United States..... 3,820 10

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
 FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

P.—Amount of letter postage on Italian mails received in and sent from the United States, during the fiscal year ended June 30, 1869.

RECEIVED.

	Unpaid.*	Unpaid distributed.	Paid.	Paid distributed.	Total.
Cunard line.....	\$485 80	\$1,696 81	\$3,579 53	.....	\$5,762 14
Miscellaneous line.....	512 70	406 85	1,379 95	.....	2,299 30
German Lloyd.....	229 10	952 75	1,777 65	.....	2,959 50
Hamburg line.....	58 85	213 30	337 65	.....	609 80
Totals.....	1,286 45	3,269 51	7,074 78	.....	11,630 74
Amount received.....	\$4,555 96	.....	\$7,074 78	.....	.....

SENT.

	Paid.	Paid distributed.	Paid stamps.	Unpaid.	Total.
Cunard line.....	\$1,673 10	.....	\$256 30	\$1,929 40
Miscellaneous line.....	2,116 80	.....	277 30	2,394 10
German Lloyd.....	888 45	.....	167 75	1,056 20
Hamburg line.....	1,732 70	.....	221 40	1,954 10
Totals.....	6,411 05	.....	922 75	7,333 80
Amount sent.....	\$6,411 05	.....	.....	\$922 75	.....

Amount collected in the United States..... \$10,967 01
 Amount collected in Italy..... 7,997 53

Total..... \$18,964 54

Excess collected in the United States..... \$2,969 48

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
 FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

Q.—Number of letters, and weight of newspapers, &c., exchanged between the United States and the United Kingdom, in British mails, during the fiscal year ended June 30, 1869.

Lines.	Rates of letters.		Weight of newspapers, &c.	
	Received.	Sent.	Received.	Sent.
Cunard line.....	1,270,342	786,960	Lbs. ozs. 161,054 13	Lbs. ozs. 59,162 7
Miscellaneous line.....	767,240	785,732	66,205 9	70,189 10
Canadian line.....	39,141	83,271	3,893 4	4,656 14
German Lloyd.....	426,749	436,321	41,864 15	38,866 15
Hamburg line.....	70,515	674,342	9,198 13	55,782 9
Baltimore and Liverpool Steamship Company.....	21	590	.....	.....
British Steamship Company.....	1,685	.....	.....	.....
Totals.....	2,575,693	2,767,216	282,217 6	228,657 7
Increase, compared with last fiscal year.....	379,802	282,285	.....	.....

No statement of weight of newspapers, &c., made during the last fiscal year.

J. J. MARTIN, Auditor

OFFICE OF THE AUDITOR OF THE TREASURY
 FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

R.—Number of letters and weight of printed matter (sent) exchanged between the United States and the North German Union (in closed and open mails) during the fiscal year ended June 30, 1869.

Lines.	Rates of letters.		Weight of printed matter.
	Received.	Sent.	Sent.
Cunard line.....	271, 795	132, 258	<i>Lbs. oz.</i> 4, 985 8
Miscellaneous line.....	148, 929	204, 927	6, 593 10
German Lloyd.....	778, 711	787, 529	36, 399 12
Hamburg line.....	619, 204	1, 083, 357	45, 107 0
Totals.....	1, 817, 939	2, 208, 071	93, 085 14

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

S.—Number of letters and newspapers exchanged between the United States and France during the fiscal year ended June 30, 1869.

Lines.	Rates of letters.		Newspaper statement.	
	Received.	Sent.	Received.	Sent.
Cunard line.....	214, 434	212, 798	<i>Number.</i> 23, 234	<i>Lbs. oz.</i> 8, 511 00
Canadian line.....	28	23, 397	5	552 11
Hamburg line.....	65, 478	209, 768	10, 264	6, 035 11
German Lloyd.....	133, 262	137, 599	35, 454	4, 972 15
Dale line.....	165, 980	156, 099	32, 717	6, 609 11
French (direct) line.....	118, 826	125, 165	27, 088	(No.) 40, 253
Totals.....	698, 008	864, 826	128, 762	.....
Decrease, compared with last fiscal year.....	153, 693	74, 422	30, 938	.....

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

T.—Number of rates of letters and weight of printed matter (sent) exchanged between the United States and Belgium during the fiscal year ended June 30, 1869.

Lines.	Rates of letters.		Weight of printed matter.
	Received.	Sent.	Sent.
Cunard line.....	15, 809	9, 762	<i>Lbs. oz.</i> 654 12
Dale line.....	9, 612	11, 972	658 9
Canadian line.....	1	5	1 124
German Lloyd.....	8, 304	8, 651	667 84
Hamburg line.....	2, 288	8, 825	411 1
Totals.....	36, 014	39, 215	2, 393 12
Increase, compared with last fiscal year.....	2, 624	6, 399	.....

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

U.—Number of letters exchanged between the United States and Netherlands during the fiscal year ended June 30, 1869.

Lines.	Number of letters.	
	Received.	Sent.
Cunard line.....	19,554	13,803
Hamburg line.....	3,684	15,916
Dale line.....	12,608	18,680
German Lloyd.....	14,348	12,025
Totals.....	50,194	60,424

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

V.—Number of letters exchanged between the United States and Switzerland during the fiscal year ended June 30, 1869.

Lines.	Number of letters.	
	Received.	Sent.
Cunard line.....	36,307	20,161
Hamburg line.....	10,350	29,029
German Lloyd.....	30,146	19,034
Dale line.....	20,595	26,528
Totals.....	97,398	94,752

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

W.—Number of letters exchanged between the United States and Italy during the fiscal year ended June 30, 1869.

Lines.	Number of letters.	
	Received.	Sent.
Cunard line.....	34,712	12,864
Hamburg line.....	3,596	13,043
German Lloyd.....	17,690	7,163
Dale line.....	13,803	16,000
Totals.....	69,801	49,070

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

X.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to Panama, during the fiscal year ended June 30, 1869.

Pacific Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Received.....	115, 573	43, 366	\$15, 964 25
Sent.....	125, 239	139, 484	23, 702 90
Totals.....	240, 812	182, 850	39, 667 15
Add newspaper postage, at two cents each.....			3, 657 00
Total postages.....			43, 344 15
Compared with last fiscal year.....	15, 163 (increase.)	9, 062 (decrease.)	2, 563 98 (increase.)

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

Y.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to Mexico, during the fiscal year ended June 30, 1869.

United States and Mexican Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Received.....	16, 607	6, 104	\$1, 853 83
Sent.....	23, 879	31, 832	2, 505 57
Totals.....	40, 486	37, 936	4, 359 40
Add newspaper postage, at two cents each.....			758 72
Total postages.....			5, 118 12
Compared with last fiscal year, (increase).....	11, 287	10, 737	1, 212 05

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

Z.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to Brazil during the fiscal year ended June 30, 1869.

The United States and Brazil Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Received.....	78, 113	21, 655	\$8, 494 91
Sent.....	81, 871	73, 934	9, 035 06
Totals.....	159, 986	95, 589	17, 479 97
Add newspaper postage, at two cents each.....			1, 911 78
Total postages.....			19, 391 75
Compared with last fiscal year, (increase).....	37, 091	12, 113	4, 437 65

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

AA.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to Belize, Honduras, during the fiscal year ended June 30, 1869.

Honduras line.	Letters.	Newspapers.	Postage on letters.
Received.....	4,005	not stated.	\$400 50
Sent.....	4,442	not stated.	444 20
Totals.....	8,447		844 70
Add newspaper postage, at two cents each.....			
Total postages.....			844 70
Compared with last fiscal year, (increase).....	3,312		\$431 20

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

BB.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to the West India Islands, during the fiscal year ended June 30, 1869.

West India mail steamers.	Letters.	Newspapers.	Postage on letters.
Received.....	398,449	68,215	\$52,028 12
Sent.....	295,309	145,788	32,676 06
Totals.....	693,758	214,003	84,704 18
Add newspaper postages, at two cents each.....			4,280 06
Total postages.....			88,984 24
Compared with last fiscal year, (increase).....	46,703	12,315	\$3,997 85

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

CC.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to China, during the fiscal year ended June 30, 1869.

Pacific Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Received.....	No returns.	No returns.	No returns.
Sent, (from New York only).....	16,570	12,190	\$1,637 00
Totals.....	16,570	12,190	1,637 00
Add newspaper postages, at two cents each.....			243 80
Total postages.....			1,900 80
Compared with last fiscal year, (decrease).....	73	3,691	\$81 12

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

DD.—Statement of letters and newspapers, with the several postages, received in and sent from the United States to Honolulu, during the fiscal year ended June 30, 1869.

Pacific Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Received.....	No returns.	No returns.	No returns.
Sent (from New York only).....	7,964	1,447	\$796 40
Totals.....	7,964	1,447	796 40
Add newspaper postages, at two cents each.....			28 94
Total postages.....			825 34
Compared with last fiscal year, (decrease).....	1,288	3,418	197 16

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

EE.—Statement of letters and newspapers, with the several postages on the mails sent from the United States to Capetown, Africa, (direct,) during the fiscal year ended June 30, 1869.

Pacific Mail Steamship Company.	Letters.	Newspapers.	Postage on letters.
Sent.....	10		\$1 00
Total postages.....			1 00

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

FF.—Statement of the amount of letter postage on the Nova Scotia and Prince Edwards Island mails received in and sent from the United States during the fiscal year ended June 30, 1869.

Boston and Nova Scotia mail steamers.	Unpaid.	Unpaid distributed.	Paid distributed.	Paid stamps.
Received.....	\$179 46	\$177 96		
Sent.....			\$680 77	\$547 64
Compared with last fiscal year, (decrease).....	73 40	86 41	1,168 21	457 40

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

GG.—Number of letters exchanged between the United States and foreign countries during the fiscal year ended June 30, 1869.

Countries.	Number of letters.	
	Received.	Sent.
Great Britain.....	2,575,693	2,767,216
North German Union.....	1,817,939	2,308,071
France.....	689,008	864,886
Belgium.....	36,014	39,215
Netherlands.....	50,194	60,424
Switzerland.....	97,398	94,758
Italy.....	69,801	49,070
West India Islands.....	398,449	285,309
Panama.....	115,573	125,239
Mexico.....	16,657	23,879
Brazil.....	78,115	81,871
Honduras.....	4,055	4,448
China, (from New York only).....		16,570
Honolulu, (from New York only).....		7,964
Capetown, Africa, (from New York only).....		10
Totals.....	5,957,796	6,638,858
Compared with last fiscal year, (increase).....	729,571	738,551

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

HH.—Amount of postages on mails exchanged between the United States and the British Provinces during the fiscal year ended June 30, 1869. (Incomplete returns.)

Amount on unpaid received.....	\$28,505 44	
Amount on paid received.....	109,944 99	
		\$138,450 43
Amount on unpaid sent.....	21,208 63	
Amount on paid sent.....	123,123 63	
		144,332 26
Total.....		280,782 69
Amount collected in the United States.....		149,029 07
Amount collected in the British Provinces.....		131,151 62
Excess collected in the United States.....		18,477 45
Compared with last fiscal year, (decrease).....		25,364 99

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

II.—Amounts reported as due the steamers of the miscellaneous or Dale line for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$16,663 00
Fourth quarter, 1868.....	15,124 58
First quarter, 1869.....	19,925 44
Second quarter, 1869.....	22,850 30
Total amount paid.....	74,563 32

Amounts reported as due the steamers of the German Lloyd, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$15,697 10
Fourth quarter, 1868.....	18,368 06
First quarter, 1869.....	23,559 39
Second quarter, 1869.....	22,603 16
Total amount paid.....	<u>80,432 71</u>

Amounts reported as due the steamers of the Canadian line, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$1,076 71
Fourth quarter, 1868.....	1,072 51
First quarter, 1869.....	1,952 21
Second quarter, 1869.....	1,648 60
Total amount paid.....	<u>5,750 03</u>

Amounts reported as due the steamers of the Hamburg line, for services rendered during (three-quarters of) the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$23,063 23
Fourth quarter, 1868.....	26,267 05
First quarter, 1869.....	34,488 82
Second quarter, 1869, (not yet reported.)	
Total amount paid.....	<u>83,839 10</u>

Amounts reported as due the steamers of the Cunard line, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$14,564 69
Fourth quarter, 1868.....	13,562 36
First quarter, 1869.....	23,323 59
Second quarter, 1869.....	20,127 44
Total amount paid.....	<u>71,578 08</u>

Amounts reported as due the steamers of the Baltimore and Liverpool Steamship Company, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$44 25
Fourth quarter, 1868, (no service.)	
First quarter, 1869, (no service.)	
Second quarter, 1869, (no service.)	
Total amount paid.....	<u>44 25</u>

Amounts reported as due the steamers of the Boston and Nova Scotia line, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$254 45
Fourth quarter, 1868.....	116 14
First quarter, 1869.....	111 56
Second quarter, 1869.....	308 55
Total amount paid.....	<u>790 70</u>

Amounts reported as due the steamers of the Pacific Mail Steamship Company, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$7,907 86
Fourth quarter, 1868, (under contract with Post Office Department.)	
First quarter, 1869, (under contract with Post Office Department.)	
Second quarter, 1869, (under contract with Post Office Department.)	70
Total amount paid.....	<u>7,908 56</u>

Amounts reported as due the steamers conveying the mails between the United States and the West India Islands, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$16,707 61
Fourth quarter, 1868.....	17,792 95
First quarter, 1869.....	16,843 42
Second quarter, 1869.....	18,518 11
Total amount paid.....	<u>69,862 09</u>

Amounts reported as due the steamers of the Honduras line, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$173 67
Fourth quarter, 1868.....	147 35
First quarter, 1869.....	146 93
Second quarter, 1869.....	124 60
Total amount paid.....	<u>592 55</u>

Amounts reported as due the steamers of the United States and Mexican Mail Steamship Company, for services rendered during the fiscal year ended June 30, 1869.

Third quarter, 1868.....	\$470 05
Fourth quarter, 1868.....	783 30
First quarter, 1869.....	732 41
Second quarter, 1869.....	995 33
Total amount paid.....	<u>2,981 09</u>

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.

KK.—*Balances due the United States on the adjustment of the postal accounts between the United States and Switzerland, for the quarters indicated.*

Second quarter, 1868.....	\$1,525 35
Third quarter, 1868.....	2,395 51
Fourth quarter, 1868.....	1,853 61
First quarter, 1869.....	1,853 56
Total.....	<u>7,628 03</u>

Balances due the United States on the adjustment of the postal accounts between the United States and Netherlands, for the four quarters of 1868.

First quarter, 1868.....	\$738 68
Second quarter, 1868.....	700 65
Third quarter, 1868.....	698 32
Fourth quarter, 1868.....	712 61
Total.....	<u>2,850 26</u>

Balances due Belgium on the adjustment of the postal accounts between the United States and Belgium, for the four quarters of 1868.

First quarter, 1868.....	\$3,920 03
Second quarter, 1868.....	3,433 90
Third quarter, 1868.....	2,842 33
Fourth quarter, 1868.....	1,010 30
Total.....	<u>11,206 56</u>

Balances due the North German Union on the adjustment of the postal accounts between the United States and the North German Union, for the four quarters of 1868.

First quarter, 1868	\$20,631 40
Second quarter, 1868	13,183 38
Third quarter, 1868	14,132 04
Fourth quarter, 1868	12,460 17
Total	<u>60,407 99</u>

Balances due France on the adjustment of the postal accounts between the United States and France, for the quarters indicated.

Second quarter, 1868	\$9,182 68
Third quarter, 1868	7,616 38
Fourth quarter, 1868	8,595 29
First quarter, 1869	9,470 29
Total	<u>34,864 64</u>

Balances due the United Kingdom on the adjustment of the postal accounts between the United States and the United Kingdom, for the quarters indicated.

Third quarter, 1867	\$32,507 34
Fourth quarter, 1867	21,071 73
First quarter, 1868	17,449 84
Second quarter, 1868	18,355 26
Total	<u>89,384 17</u>

J. J. MARTIN, Auditor.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST OFFICE DEPARTMENT, October 29, 1869.



